

LOGIC 5tm

PC power for your shack

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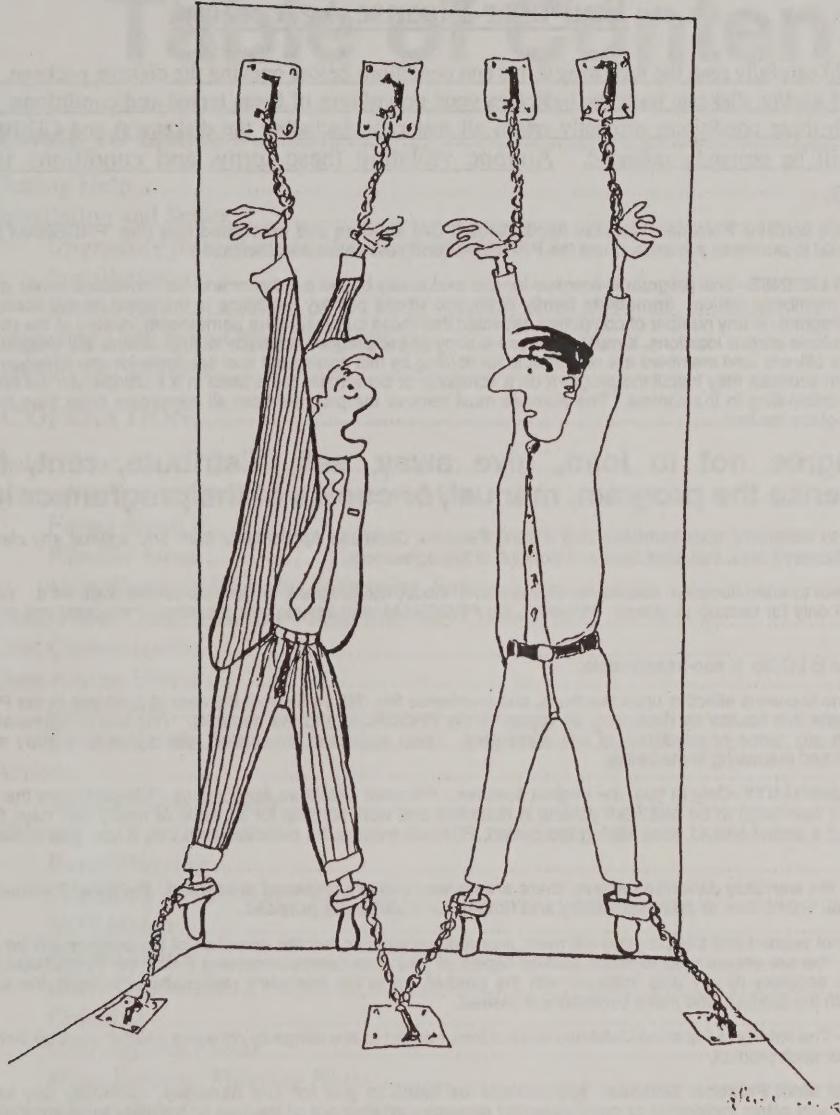
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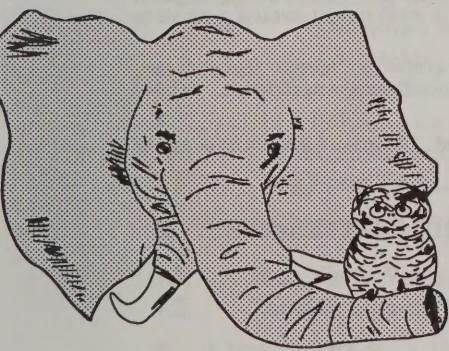
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"Did You forget to Do a Backup too?"

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We wish to thank the following for their invaluable help in beta testing LOGic 5: Scott Blystone K9EEE, Jim Clymer WS6X, Juhn Cummins AD4S, Nate Dixon N7OS, Fred Doob K8PP, Paul Elliott N3GPU, Bill Garrett KD4IFV, Eli Hadashi 4X6UV, John Hale AC4ET, Karl Heinz Kuhlborn DL2FAG, Mac McDaniel N0OB, Al Parsons VE6RFM, Bruce Paige KK5DO, Glenn Pladsen AE0Q, Gary Randall KD4VRZ, and Eli Stern 4Z5IS. We especially want to thank all LOGic customers, who have provided suggestions and encouragement over the years. And a big "thank you" to Lidia Seda, whose cartoon (above) cannot overemphasize the importance of keeping a backup of your log.



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Second Printing.

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1. Welcome to LOGic 5

Welcome to LOGic 5, the most advanced amateur radio software available. If you are not familiar with LOGic 5, we recommend reading this to get an overview of its many capabilities.

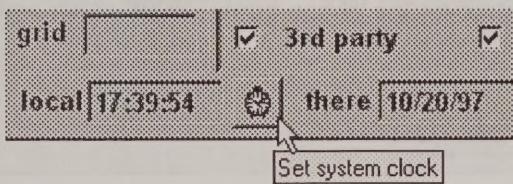
In addition to this manual, LOGic 5 comes with extensive online help. It contains everything in the printed manual, plus information on LOGic's advanced features. Its appendix contains miscellaneous general information related to LOGic. You can search LOGic's online help for information using Index or Find. Find is particularly useful because it searches every word or combination of words in the help file. Check out this very useful feature of LOGic 5.

Advanced features, such as radio/rig/packet/digital communication interfaces, internet features, and contesting are covered in LOGic's online help.

This printed manual assumes that you are familiar with the basics of amateur radio and using your computer—running programs, moving and copying files, manipulating windows, etc. If you are unfamiliar with Windows or using your computer, please review the Windows manual or read one of the many books available on the subject.

1.1. Getting Help

Assistance is readily available to help you enjoy LOGic. LOGic has comprehensive online help. Most windows have a help button. Click it to display the appropriate section of this help file. Be sure to press the << or >> buttons to view the previous or next section, which may be applicable.



Many items have *touch help*, which are short descriptions and additional info that may be viewed by merely resting the mouse pointer on the object for a few seconds.

Latitude	33.123	Your
Longitude	-83.456	Your
Grid square	EM83GC	Your
0-90. Northern hemisphere is positive. Southern Hemisphere is negative		

Help may also appear on the *status bar* when you move the mouse over an object, or position the text cursor in a field.

Other resources are available to assist you. At our web site

<http://www.hosenose.com>. You will find information and downloads that may solve your problem. From our main page, select the Tech Support link.

You can use the LOGic Net Reflector to communicate with other LOGic users. Sign up at <http://www.hosenose.com/subnet.htm>

If you need personal assistance, you may email us at logic.support@hosenose.com. Attach any files or screen shots that will assist us. Please send all attachments as binary attachments, even if sending a text file. This assures that the file we receive will be the same as the file you sent.

You may also send your tech support questions via fax at 770-307-0760.

You may call our tech support line at **770-307-1496**. If your question is difficult to convey in writing or you are not familiar with computers or amateur radio, this may be your best option. When calling, please try to be at your computer, and have it running. We may ask you some questions to verify that you have purchased LOGic. While this line is staffed on an average of over 8 hours per day, we do not always have a tech support person available. So, if you receive no answer, just try later. We frequently have evening coverage for your convenience. *We cannot accept technical support calls on our office line.* Collect calls are not accepted. Please note that we close at noon on Friday.

You may also mail us at:

**LOGic Technical Support
Personal Database Applications
1323 Center Drive
Auburn, GA 30011-3318 USA**

An SASE is not required, but will speed our reply. As with email, please enclose any files or printouts that will assist us in helping you. Do not mail your only copy of something! Make a backup copy, and send that to us.

When corresponding with us, *be sure to fully explain your question or problem*, document the procedures you went through, and attach any screen printouts, etc. that will assist us in helping you. Please ask specific questions. If you simply state that you cannot get LOGic to run or you cannot get LOGic to do such-and-such or do not understand the manual, we will not be able to help you.

If you are reporting a bug, it will be very helpful if you determine exactly what to do to reproduce the bug.

If you have questions about manipulating Windows – moving, resizing, selecting, etc. – please consult your Windows manual or help file. It has illustrations to help explain these actions. Your local library may have additional books and videos. It is extremely difficult to assist you with basic windows usage over the phone or via email, as we cannot see what is on your screen.

1.2. Installation and Setup

1.2.1. Upgrading from Previous Versions of LOGic

LOGic 5 is a complete new program, and does not update previous versions . **Do not install LOGic 5 in the same subdirectory as a previous version of LOGic!** Leave your previous version of LOGic on your computer. It will continue to function as usual. Do not remove it until you have imported your data!

To import LOGic 3 or 4 data, select the Import LOGic 3 or 4 data option from the Tools menu. If you are upgrading from a previous version, please send your LOG.DBF and LOG.DBT files to PDA, and we will import it at no charge.

1.2.2. Installation

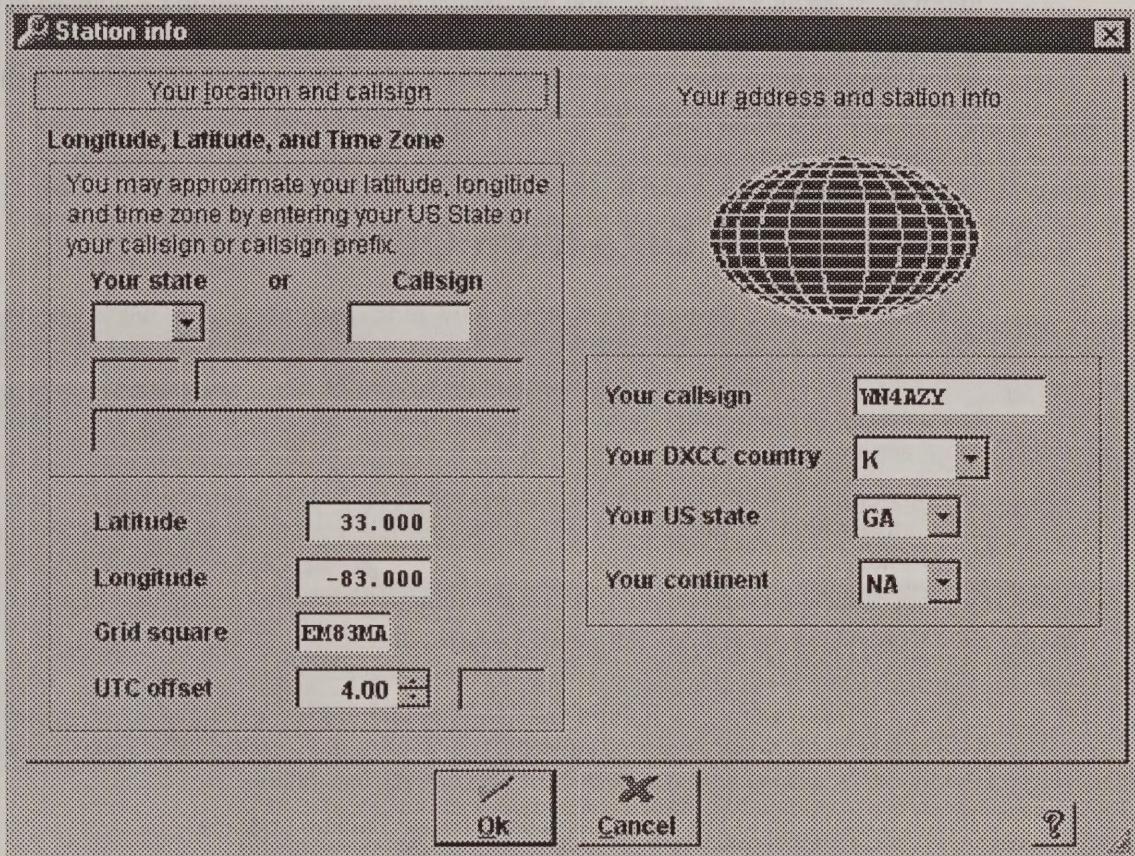
Insert the LOGic 5 CD-ROM in your drive. Click the Start button on the Windows 95 task bar. Click Settings. Click Control Panel. Click Add/Remove software. Click the INSTALL button. Follow the instructions that appear on your screen.

After the software installs, your system will be rebooted. Click the LOGic 5 icon to proceed. The first time LOGic is run, it will generate index files. This will take several minutes.

When indexing is complete, you will be asked to enter some information about your station. LOGic needs to know your latitude and longitude to accurately calculate DX and direction and aim your antenna properly.

1.2.3. Station Info

You may run the Station Info form at any time by selecting Tools/Setup on the menu bar.



There are several ways to tell LOGic what your latitude and longitude are. If you live in the USA, select **Your State** in the "Longitude, Latitude, and Time Zone" box. If you are a DX station, enter your callsign. This will approximate your QTH.

If you know your exact latitude/longitude or grid square, you may enter them for precise specification of your QTH. Stations in the Southern hemisphere (south of the equator) enter negative latitudes.

Please note that locations in the Western hemisphere (the Western hemisphere includes North and South America) use *negative* numbers to represent longitude. Most road maps do not show the negative sign for their coordinates.

LOGic needs the correct *UTC offset* for your time zone so that it can calculate *UTC* from your system clock. Usually this is filled in automatically when you enter your callsign or select your US state. If the value calculated from your callsign or state is not correct, enter the number of hours to add to your system clock to get UTC. Enter a negative number to subtract from your system clock.

The offset can also be obtained from the small numbers around the equator on the ARRL World Map. If you are not sure of your UTC offset, make your best guess. Be sure to correct for Daylight Savings Time or other time variations if applicable. If you are wrong,

you may easily adjust it later by clicking the +- button next to the UTC clock on the info form.

You must also enter your callsign, DXCC country, US State if applicable, and your continent. LOGic uses this information for scoring contests.

Select the "Your Address and Station Info" tab to specify your name and address that will appear on QSL cards and return address labels. You may also specify a line of additional information about your station, and the default transmitted power to be entered in the log forms.

Select the OK button to accept your entries. LOGic will update its DX and Direction info tables. This will take about a minute.

LOGic is now ready to use.

1.3. Importing Data from Other Programs

LOGic will import data from most other ham radio programs. If LOGic's import facility does not support your data, we will import it at no charge. See LOGic 5's online help under Import for more information.

LOGic also exports data in a number of formats for use in most spreadsheet and database manager utilities.

User-extensible ADIF (Amateur Data Interchange Format) import and export is fully supported. ADIF is an open standard that permits exchange of log data among most programs.

1.4. Backup and Restore

LOGic includes a backup feature that compresses your log data so that up to 40,000 QSOs will fit on a single diskette (multiple diskettes are supported). Back up your data frequently to protect yourself from hard disk failure, fire, etc.!

To run backup, go to the Tools menu and choose Backup Log File.

When you restore the data, you have the option to replace existing data or append to existing data. Use the Append option if you are merging data from a multioperator contest (LOGic supports multiuser networking too—see help). If you accidentally append and end up with duplicate QSOs, there is a program under Tools/Misc Utilities to remove dupes. You may also restore and do nothing with the restored data. It is left in a temporary file.

Note that the backup facility backs up only log data! It does not back up changes to reports, log form setups, or other tables. It is recommended that you periodically back up your entire system, including LOGic!

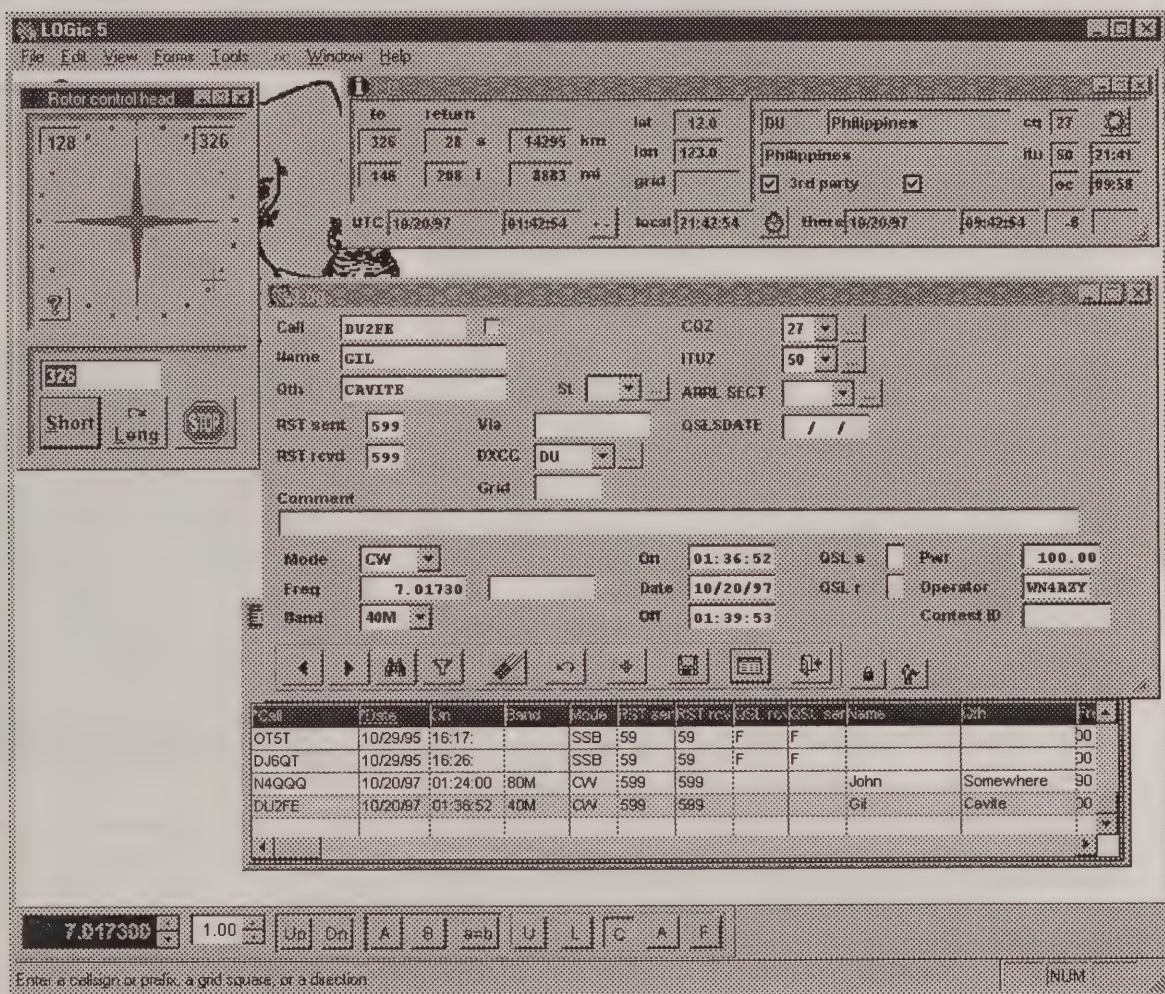
If you want to copy the log data manually, copy LOG.DBF and LOG.FPT, which are in the LOGDATA subdirectory. LOG_BIO.DBF and LOG_BIO.FPT contain the biographical info. If you restore files that you manually backed up, please run the clean option from your start menu to regenerate indexes.

2. Basic Operation

2.1. Quick Tour

Let's take a few minutes to tour the basic features that you must be familiar with to use LOGic. All of the features discussed here will be presented in depth later in this manual.

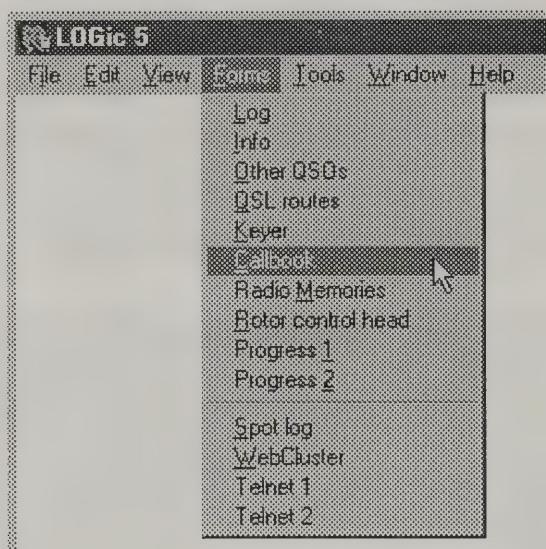
Here is a picture of what LOGic might look like in typical operation. The log form is used for entering, retrieving, viewing, and editing log data. The browse form shown here below the Log window displays several QSOs at once. It has several options for organizing and searching your log data. The Info form shows information such as distance, direction, DXCC, country name, *UTC*, local time at the DX station, your local time, etc.



Also shown is LOGic's rotor control head, and the control panel for a radio interface. However, this is just a small sample of the forms and options available in LOGic. There are many other forms you may open. There are forms that display packet spots, control your Packet Radio TNC or multimode controller, provide interface to internet resources such as Telnet or WebCluster, display awards progress info, show previous QSOs with the station you are currently working, etc.

2.2. Managing Forms: Forms and Windows Menu

2.2.1. Forms Menu

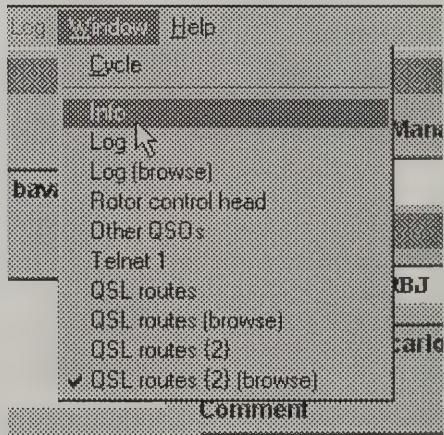


To open LOGic's forms, select **Forms** on the menu bar. Some forms may be opened multiple times, (unless the multiple forms feature is disabled). If you attempt to open a form that is already open, and that form does not permit multiple instances, the currently-open form will be displayed.

Some of LOGic's forms cannot be accessed from this menu. Radio interfaces and data terminal forms must be opened from Tools/Setup/Misc Ham Setup. Once enabled, these forms must remain open. However, data terminal forms, like most other forms, may be minimized.

2.2.2. Window Menu

If you have experimented with LOGic's Forms menu, you have quickly learned that you can have many forms open at the same time. Some may become "lost" behind other open windows. The Windows menu provides an easy way to manage your open forms. It lists the titles of all open or minimized forms, and displays a check mark next to the currently active form. You may select another window to be the active window. Just click on the title of the desired form. If the selected form is minimized, it will be normalized.



If the form is positioned beyond the edge of LOGic's main window (this can happen if you reduce the size of LOGic's main window), it will be moved so that a corner will be visible.

The **Cycle** option steps through all open or minimized forms.

2.2.3. Miscellaneous Hints for Managing Forms

Most forms can be minimized. Minimizing a form shrinks it to a small icon and title bar at the bottom of the main LOGic window. Minimized forms continue to function—you just cannot see their contents. **Normalize** (unminimize) it for immediate viewing. Clicking the leftmost control in the top right hand corner of a window minimizes or normalizes it. You may also normalize a minimized form from the Window menu, or by double-clicking its title bar.

You may find that you have inadvertently opened many instances of the same form. To prevent this, do not use the Forms menu to access a form that is already open. Just click on the form, or if it is hidden behind other windows, use the Window menu. You may disable LOGic's multiple form instance feature (see page 21).

2.3. Basic Form Customization—Font Size and Color

Depending on your monitor, video resolution selection in the Windows control panel, and eyesight, you may discover that forms are too large—they do not fit on your screen, or there is not room to have all the forms visible that you desire. Or you may desire larger type that is easier to read.



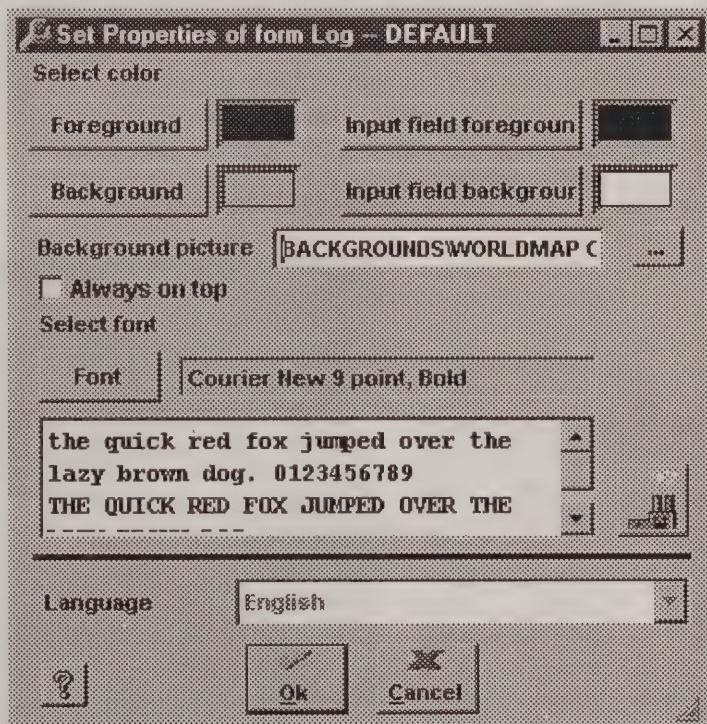
Most of LOGic's forms have customizable font sizes. Look for the triangular font resizer control in the bottom-righthand corner of the window. Place the mouse pointer over the window border next to the resizer. Note that you should see a double-headed arrow. Drag the border to change the size of the window. The fonts will zoom to a new size. Note that if the lower right hand corner of the window is not visible, you may drag either the top or bottom margins.

The window will not zoom smoothly, but will snap to the nearest available font size. This is normal. Because your monitor displays fonts as a collection pixels (dots that form the picture on your monitor), characters must be made up of a cell of an integral number of pixels. In other words, you cannot have a font that is, for example, 8 ½ pixels high. It has to be either 8 or 9, or some other whole number in size.

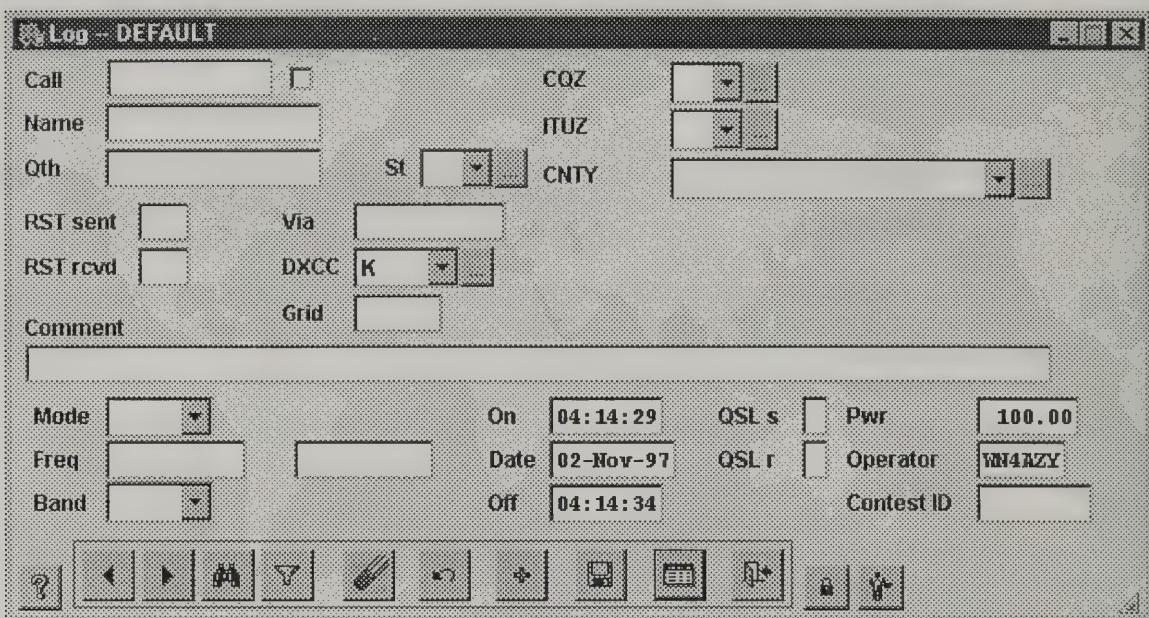
To quickly check the size of the chosen font, click the font resizer control.

To change color, *right-click* the background area of a form. You may select foreground and background colors for the form, and its data fields. You may also change font name and style. However, this is not recommended for most forms. The boxes where you type your data, called **data fields**, should use a *non-proportional font*. Courier New is the only such True Type font provided with Windows.

Instead of a background color, you may select a bitmap graphic for your forms. Several are included with LOGic, and you may make your own. Just use the Windows Paint program or other paint program to make a standard .BMP image. It is recommended that you put your background images inside LOGic's **Backgrounds** folder. When making background graphics, they should be low contrast and be either very light or very dark, so



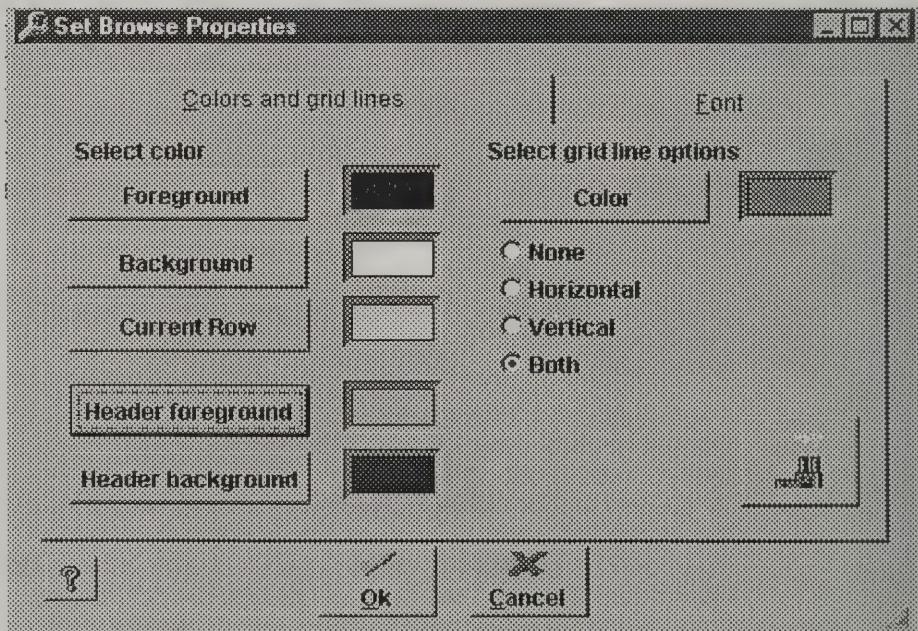
that the text on the form will be legible. After selecting a background, you may want to adjust text colors for maximum attractiveness and readability.



The log form allows even greater customization than discussed here. You may change the size of the window's work area without changing font size, add or remove fields, and drag fields to your desired location. See Log Form Layout Customization on page 36.

2.4. Grid Customization

LOGIC makes liberal use of grids to display data in columnar format. Grids have a number of customization options. Right-click a grid to display the grid properties form. You may adjust colors of the foreground, background, current row, and grid lines. You may also



control if grid lines are shown or not. You may select only horizontal lines between rows, vertical lines between columns, or both.

You may select any font for a grid. A *proportional* font is desirable to display the maximum amount of data.

You may also adjust column widths, column order, height of headers, and height of data rows. Following are illustrations of adjusting each. For each example, position the mouse as shown, then *drag* as described. (The grid was set to use light colors for these photos so the black mouse cursor will be visible.)

Browse		Notes
	+	
Charles F	6 Jul 97	18:35:00
Andre C	23 Aug 97	01:52:00
Michael		

Resize column. Position the cursor on the dividing line to the right of the header to be resized. In this illustration, the Name column is being resized. Drag the line to the left to narrow the column, or to the right to widen the column. It is possible to size a column so that it has no width. The resulting line will be heavier than normal. You can drag this line to retrieve the column. However, LOGic will automatically adjust zero-width columns to a very narrow column when restarted. It does this so that users will not accidentally lose columns. If you do not want a column to appear, do not reduce it to zero width. Instead, drag the entire column to the right of the visible area of the grid, as described below.

Browse		Notes
	↓	
KC8LOJ	Charles F	06 Jul 97
KL7AC	Andre C	23 Aug 97
Michael		

visible portion of the grid. You can still see these columns by panning to the right using the bottom scroll bar of the grid.

Browse		Notes
KC8LOJ	Charles F	
KL7AC	Andre C	
Michael		

Resize row. Position the mouse pointer as shown on the line below the first row on the grid. The mouse pointer must be close to the left edge of the grid. Drag the line down to make all rows wider. Drag up to make all rows narrower.

+	
KC8LOJ	Charles F
KL7AC	Andre C
Michael	

Resize header. Change the height of headers by positioning the mouse pointer as shown on the line below the leftmost header. The mouse pointer must be close to the left edge of the grid. Drag the line down to make the header row wider. Drag up to make the header row narrower.

2.5. Data Access Forms

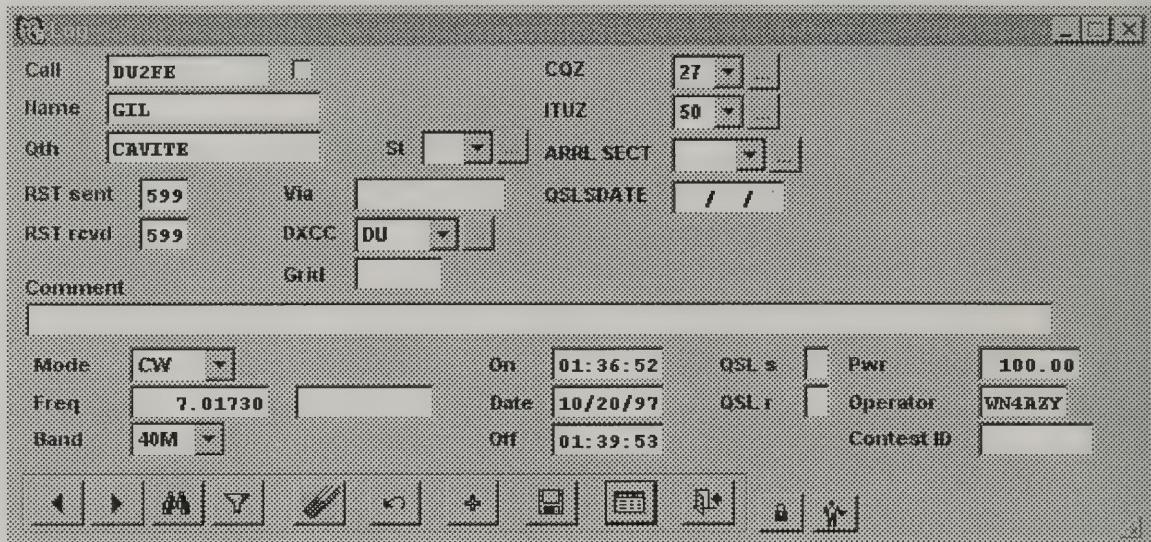
LOGic provides you with the most powerful yet convenient screens for accessing your data. The same set of screens is used for entering, editing, searching, and viewing your data.

If the log form is not already open, click on Forms on the menu bar, then Log. When the file selector appears, select DEFAULT.LOGFORM. You will see other files listed as well. These are log forms for contesting. You can also create your own log forms to be added to this list, but for now select DEFAULT.LOGFORM. This is a basic log form that has the fields and layout needed for general all-around logging.

LOGic's other data forms (QSL routes, Lists, Band Table, etc.) operate similarly to the log form. Once you learn to use the log form, you will know how to use LOGic's other forms.

Each data access form has two windows—a **Browse** form and a **Data** form.

2.5.1. Data Form



The **Data** form shows one record at a time, but displays all fields of the record. It is also used to change your data or enter new data. Navigate the data window by clicking on the desired field with the mouse, or using {Tab} to move to the next field, or {Shift+Tab} to move backwards through fields. Touch Help is available for most fields. Some fields display additional info on the *status bar*.

Resizing a data form changes its font size. See page 11.

2.5.2. Browse Form

Log -- DEFAULT								
Browse		Notes		Address		Big		
Call	Name	Date	On	Band	Mode	RST rcvd	RST sent	
DU2FE	Gil	05-Nov-97	18:57:38	10M	SSB	59	59	
DU3BAA	Jun Moret	08-Mar-93	23:55:14	10M	SSB	54	55	
EA1DHH	Jaime	30-Dec-89	16:29:	15M	CW	549	539	
EA1EWV		29-Mar-92	19:16:13	10M	SSB	59	59	
EA3BOX		13-Dec-92	14:44:54	10M	SSB	59	59	
EA3EZO	Jose Gutierrez	11-Dec-88	16:28:	10M	SSB	59	59	

The **Browse** form uses a grid to show several records simultaneously. It is a great tool for visually scanning your data. You may scroll through it with a mouse or with the {Page Up} and {Page Down} or {Up Arrow} or {Down Arrow} keys. Click on a record to display it in detail in the data window. The currently-selected record is highlighted. Most browse forms have more data than will fit on the grid. Pan sideways with the bottom scroll bar to see all fields. The grid has several customization options. See page 12. The browse form may be resized to take up less space or to view more data.

The browse window may be anchored to the bottom of the data window. To anchor it, click the anchor button until it is depressed or pushed in on the browse window. Having the browse window anchored makes organizing windows easier if you open several log forms.

To unanchor it so that it may float freely inside the LOGic application window, click the anchor button so that it is not pushed in.

You may close the browse form if it is not needed. You cannot close the data form without also closing the browse form, but you may *minimize* it.

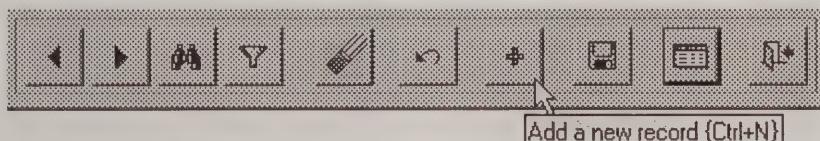
Note that the browse and data windows are coordinated. When you select a different record while in one window, the other window is automatically updated to show the new record.

Columns displaying *indexed* fields are marked with an asterisk (*). *Double-click* a marked column heading to change the database order. For example, if you double-click the Call column, the data will be reordered to display alphabetically by callsign. If you double-click the date field, the database will be ordered chronologically. The column currently indexed is indicated with an underlined caption. You may click the search button to search indexed columns. Advanced users may add indexes to the database to permit ordering and searching on additional columns. See the help file.

Some browse forms have edit fields for accessing freeform notes that are associated with a record. *Right-click* to change font, etc. The check marks on the index tabs allow you to determine if there is anything entered without having to select the tab and actually look at the field.

2.6. Actions

LOGic's data access forms are capable of performing many actions – adding a new record, changing existing data, searching your data, etc. The control panel at the bottom of the data window activates the various actions.



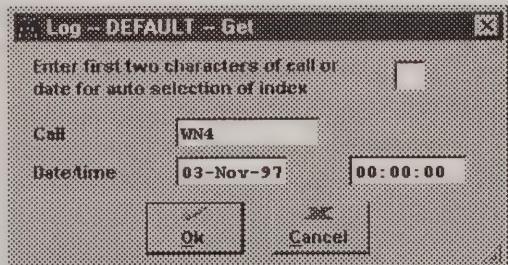
Add a new record {Ctrl+N}

Here is a summary of these actions. Some are discussed in more detail in other sections. Each action may be performed with a keyboard shortcut. *Touch help* will reveal the keyboard shortcut. Additional information for each button may appear on the *status bar*. Also note that most of these actions will not work until you have entered some data into your log. Obviously, you cannot erase or go to the next or previous record when there is no data in the log.



The **Next** and **Previous** actions page through the log. The current database order is used. See **Get** below.

 The **Get** action allows simple and instantaneous lookup of a QSO by entering either the callsign or date/time of the QSO. When the Get form is open, the cursor is positioned in the small field at the top of the form. It analyzes your input and automatically selects the Call or Date/Time field. You do not need to enter an exact call



or date/time. The closest match will be found.

When GETting, the database is reordered according to the field that you searched. For example, if you searched on Call in the log form, the log will be switched to Callsign order. If you searched on Date/Time, the database will be switched to Chronological order. You may easily see how your database is ordered by looking at the browse form. The header of the column that the database is currently ordered by will be underlined.



Filtering allows you to search on any field or combination of fields. It is a very powerful tool for searching your data. See the section on Filtering for more details.



The **Erase** action permanently removes a record from your database. You are normally asked to verify that you want to erase, but you may turn this safety feature off. See Application Options on page 21.



Then **Undo** action reverses any changes that you have made to your data. If you undo while adding a record, the new record is discarded.



Add new record clears the data form and adds a new, blank record to the database. The cursor is placed in the Call field. The button changes color to indicate that an add is in progress.



Save writes changes or new records to disk, and attempts to flush all disk buffers. You do not have to press this button to save your changes! LOGic automatically saves changes for you when you exit the form or access a different record. This button merely provides a way to assure that data has been saved. For example, you will want to click it if you are in the middle of adding or changing a record, but must leave your computer before finishing. This will greatly lessen the chance of data loss should the power fail or your computer crash in your absence.

If you do not like LOGic's automatic save feature, you may effectively disable it. See page 21.



The **Browse** button activates the browse window. It performs the same function as clicking on the browse window. However, this button provides {Enter} as a keyboard shortcut. This button is also handy if you have several data forms with unanchored browse forms open at the same time. It will activate the browse form that belongs to the data form whose button you click.



The **Close** button performs the same function as clicking the X-button in the top right hand of the form, but provides a keyboard shortcut for closing the form. The Browse window may be closed if it is not wanted by clicking the X in the top right hand corner of the window. Closing the data form will also close the browse form.



2.6.1. Browse Form Actions

Most action buttons are also available on the browse form. The keyboard shortcuts for these are single letters as opposed to a control-key combination in the data window. For example, in the data window, you must press {Ctrl+N} to add a new record from the keyboard. Typing "N" merely enters "N" in a data field. However, since the browse form is read-only (it does not permit typing data into the columns), you may type just "N" to add a new record. However, for consistency, {Ctrl+N} will work from the browse form also.

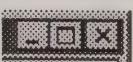
You can use the single-key shortcuts from the data form by pressing {Enter} first. {Enter} is the keyboard shortcut for activating the browse form. So if you are finishing one QSO and want to begin another, you may press {Enter} then N instead of {Ctrl+N}.



The browse window has a **Change** button, which activates the data window so you can change your data. This button performs the same function as clicking on

the data form, but provides a keyboard shortcut.

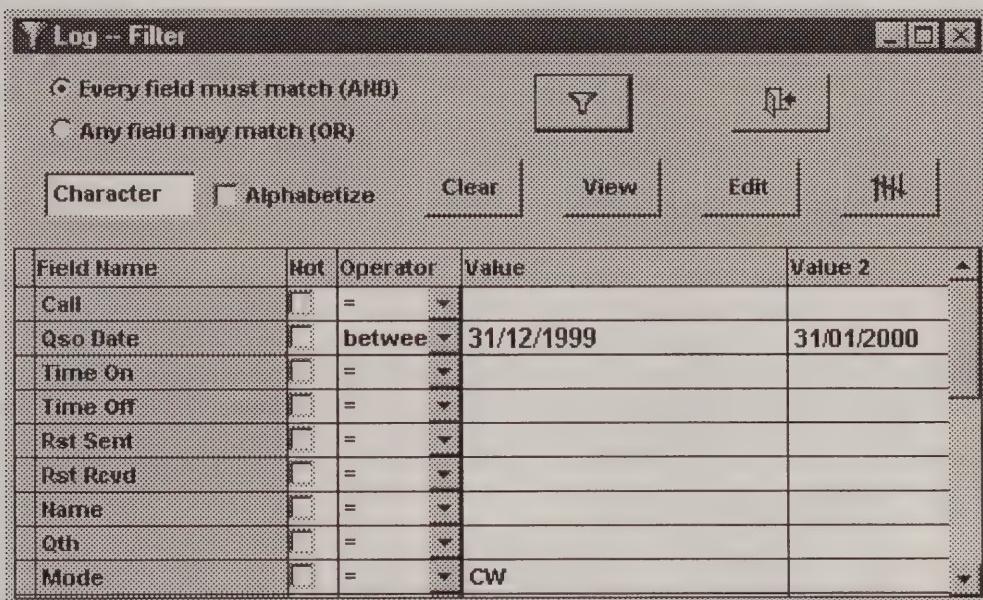
 The **Incremental Search** button allows you to perform a search on the currently-indexed column of the browse grid.

 The **Close** button on the browse form closes the browse form *and* the data form. To close just the browse form, click the close control  in the top right hand corner of the form.

The browse form has no next or previous buttons, because the grid has scroll arrows and scroll bars to accomplish the same thing.

2.7. Filtering

LOGic's data forms feature a very powerful, yet easy-to-use facility for retrieving your data. We have already discussed Getting and Searching. While these data retrieval functions will handle the majority of your lookup needs, they function only on *indexed* fields, and only on one field at a time. The Filter feature is not dependent on indexes, and can search several fields at once. For instance, you may use filtering to view all QSOs with CA on 10 meters FM with someone named Bob or Robert.



The screenshot shows the 'Log -- Filter' dialog box. At the top, there are two radio buttons: 'Every field must match (AND)' (unchecked) and 'Any field may match (OR)' (checked). Below the radio buttons are several buttons: 'Character' (selected), 'Alphabetize', 'Clear', 'View', 'Edit', and a magnifying glass icon. The main area is a table with columns: Field Name, Not, Operator, Value, and Value 2. The table contains the following data:

Field Name	Not	Operator	Value	Value 2
Call	<input type="checkbox"/>	=		
Qso Date	<input type="checkbox"/>	between	31/12/1999	31/01/2000
Time On	<input type="checkbox"/>	=		
Time Off	<input type="checkbox"/>	=		
Rst Send	<input type="checkbox"/>	=		
Rst Recvd	<input type="checkbox"/>	=		
Name	<input type="checkbox"/>	=		
Oth	<input type="checkbox"/>	=		
Mode	<input type="checkbox"/>	=	CW	

Since Filtering does not rely on indexes, it is relatively slow compared to Getting. The entire file must be read to search for matching records. Nonetheless, most systems can search 2500 records per second!

2.7.1. Basic Filtering

 To filter, click the filter button on the data form or its browse form. The filter form will appear. It lists all fields in file(s) accessed by the form. For simple filtering, simply scroll to the desired field, and enter the search value in the Value column, then click the filter button in the filter form. If your search values are too long to fit in the field, continue to type. The field will scroll sideways.

The data form will be activated and every QSO with the value you specified will be displayed in the Browse window (you may have to scroll up and down to see them all). LOGic will also display a count of the number of matching records found.

Filtering makes the file appear to contain only the records that match the criteria that you specify. However, the other names are not gone. They are simply being hidden from view. The filter button in the data and browse forms change color to indicate a filter is in effect. To remove a filter so you can see all of your records, click **Clear** on the filter form.

2.7.2. Searching More Than One Field

To search on more than one field, fill out more than one row on the filter form. For example, to find everyone named Robert who lives in California, enter ROBERT for the value in the Name row, and CA for the value in the State row. Select **Every field must match (AND)** or **Any field may match (OR)**. If you select **Every Field**, a record will be displayed only if it matches every row that you filled in. If you select **Every field** only people named Robert who live in CA will be displayed. If you select **Any field**, the record will be displayed if any or all of the rows that you filled in matches. In this example, it would find everyone named Robert (regardless of where they live), plus everyone in CA, regardless of what their name is. You will use **Every field** most often.

You may search for two matching values for the same field using the **Value 2** column. For instance, if you select the Name row and enter ROBERT in Value, and MARY in Value 2, everyone named Robert or Mary will be found.

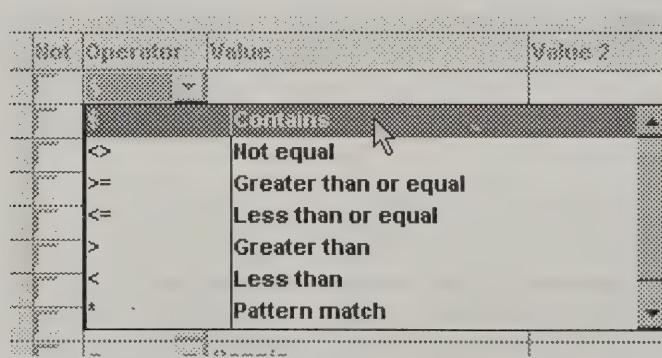
2.7.3. NOT Match

To find all records **except** those matching the search values, click the NOT column to put a check mark in the little box. Entering ROBERT for the value, and checking NOT will find everyone who is not named Robert.

2.7.4. Partial Match

With fields that contain character data, you may enter only the first part of a value in the field, and only the number of characters entered will be matched. For instance, ROB will display ROB, ROBERT, ROBBIE, ROBERTO, and ROBERTA. Entering R will find everyone whose name starts with the letter R! You may disable the partial match feature by putting an underscore (_) after the value. For instance, ROB_ will locate only ROB, not ROBERT, ROBERTO, ROBERTA, etc.

2.7.5. Other Operators



So far we have discussed searching for fields whose values equal (or NOT equal) the value we specify. By changing the Operator in the operator column, we can perform other searches. For example, field values greater than the specified value.

While <, >, <=, >=, and **Between** are especially useful for numbers and dates, they may also be used on characters. > ANNE will locate ANNE and all values that come alphabetically after ANNE.

The Contains (\$) operator searches for the value anywhere in the field. Searching for \$ AR will find ARNOLD, CAR, CARRY, etc. It is particularly useful for searching for words in long character fields such as Comments and memo fields.

The selection of available operators will vary with the type of data the field can store. You cannot use containment or wildcard matching on numeric or date fields. Logical fields, which can contain only a Yes or No value, allows only =.

To use the **Between** operator, you must enter something in both the Value and Value 2 columns. **Between** searches are inclusive. Searching for BETWEEN 10 and 20 will find 10, 20, and anything in between.

Wildcard pattern matching works similar to the wildcard filename matching in DOS and Windows. A ? matches any single character. A * matches any character or group of characters, or no character. For example, ANN? will match ANN followed by any single character, such as ANNA or ANNE. *ANN* will match ANNA, ANNE, LOUANNE, or LOUANNA. *?ANN? will match LOUANNA or LOUANNE, but not ANNA OR ANNE, since the first ? says that some character must precede ANN.

2.7.6. Counting



The filter feature is also useful if you only want a count of matching records. Counting is performed just like Filtering, except you click the count button to perform the count.

2.7.7. User-defined Fields

User-defined fields are all stored in a long character field named USERFIELDS. The format is as follows:

field name:value

For example, CQZ:14|

To search for a user-defined field, use the \$ operator on the USERFIELDS row of the Filter grid. For the value, enter the field name, a colon, the value, and the terminator character, which is {shift+backslash} on most keyboards. Most of the time, merely entering the value is sufficient. Enter the field name with no value to locate all records with the specified value.

Dates are stored in YYYYMMDD format. Logical values will be Y or N.

2.7.8. Miscellaneous Filtering Notes

The filter form may list many fields. To quickly locate a field, click on the **Field name** column and type the field name you are looking for. An incremental search is performed, so you may type only the first character or two.

Closing the filter form does not cancel the effect of the filter on the data form. To cancel a filter when the Filter form is closed, reopen the filter form and click **Clear**. Closing a data form removes any filter that is in effect.

To search for a blank character field, enter the underscore character (_) as a search value. You can check Not to find non-blank fields.

LOGic uses quotation marks ("), apostrophe ('), and square brackets ([and]) internally when filtering Character and Memo fields. You may search for values containing quotation marks, apostrophe, or square brackets, so long as you do not use all three marks in the same search value. [BIG "RIG"] and "JOE'S PIZZA" is valid. "JOE'S [BIG RIG" will cause an error.

Case (capital vs. small) is ignored when searching.

You may add or change data while a filter is in effect. However, any data that does not match the filter will disappear from the filter view. It will be available when the filter is cleared or from another instance of the same data form.

Field Name	Not	Operator	Value	Value 2
Name	<input type="checkbox"/>	=	rob	mary
Notes	Filter expression <input type="button" value="X"/>			
Operator	(NAME='ROB' or NAME='MARY')			
Pwr				
Qsl Rcvd				
Qsl Sent				
Qso Date	<input type="button" value="OK"/>			

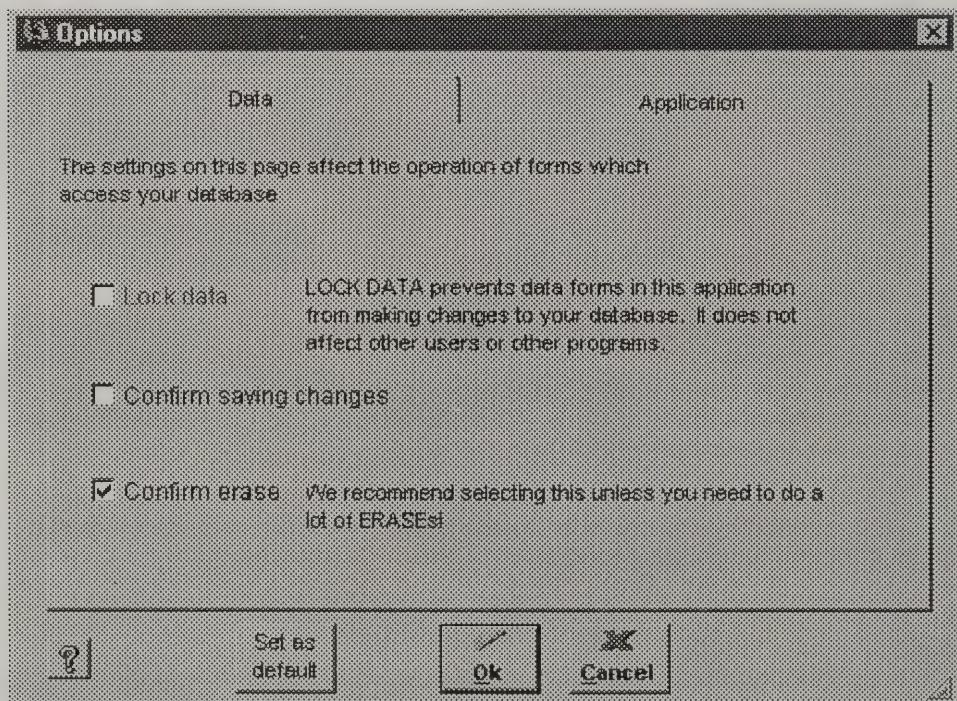
The filter form analyzes the values you enter and creates *select criteria*. You may view the select criteria by clicking the **View** button. While making a select criteria from scratch can be challenging, they are quite easy to read, and are often more easily understandable than looking at the grid. This is a great aid in learning to make select

criteria used by LOGic's advanced features.

While LOGic's Filter Maker is very powerful, there are some searches that it cannot do. It is possible to enter your own select criteria so as to search on any imaginable criteria. Click the Edit button and enter the select criteria. See LOGic's online help.

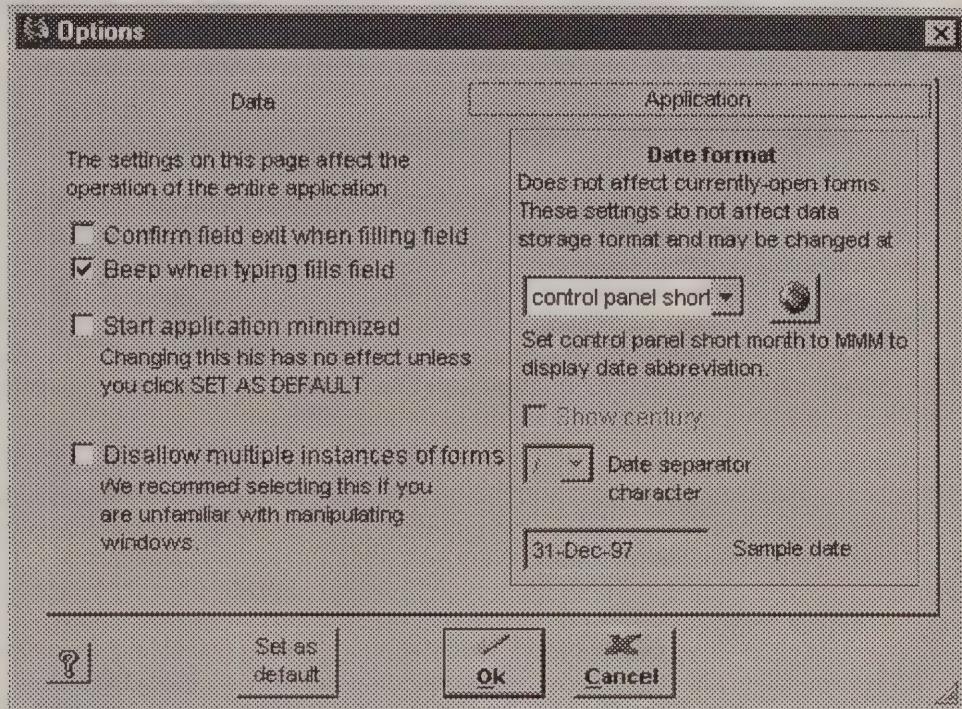
2.8. Application Options

Select Options from the Tools menu on the menu bar to set options that affect the behavior of the entire application. Changes normally are in effect only until you exit the application, and will be reset to their defaults when you restart the application. However, if you click Set as Default, your changes will be saved and used every time you run the application.



•**Lock Data** will prevent you from accidentally changing data from a data form. It does not protect data from maintenance utilities, or other users or programs that may be accessing your data.

- **Confirm saving changes.** LOGic does not require that you take any action to save changes you have made to data. It saves them automatically whenever you proceed to do something to another record or exit the form. If you make changes and decide you do not want to save them, you normally Undo. However, you have the option to be prompted for confirmation whenever LOGic saves changes.



- **Confirm erase.** Normally you are asked for confirmation when you erase a record. You may wish to disable this prompt if you will be manually erasing a lot of records.
- **Confirm field exit.** If this option is off, the cursor will automatically jump to the next field when your typing fills the current field. When this option is on, you must press {Tab}, {Down Arrow}, use the mouse, etc. to exit the field and go to the next.
- **Beep when typing fills field.** This option gives you audio alert when you have filled up a field.
- **Start application minimized.** If you select this option, LOGic will load but appear only as a button on your task bar when you run it. This is ideal if you put a shortcut to LOGic in your Startup folder. When changing this option, you must click Set as Default, or it will have no effect.
- **Disallow multiple form instances.** LOGic allows you to open some forms (such as the log form) multiple times. This is a very handy feature, but can be confusing to the novice user. If this option is selected, attempting to open a form that is already open will simply show the existing form rather than creating a new form.
- **Date format.** Normally LOGic uses the date format set in your control panel. Click the button to run the control panel date format selector. However, you may select from among numerous other options. You may select the date format used to display and enter data. You may change this option at will, as it does not affect the format used to store dates in your database.

LOGic is year 2000 ready.

3. Log Form Basics

3.1. Logging a QSO

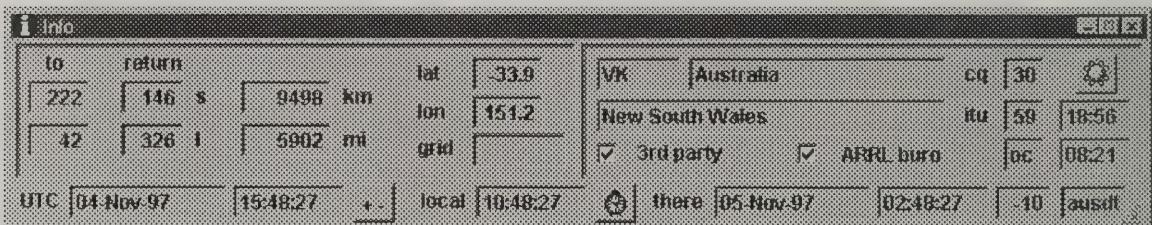
By now you are familiar with the overall operation of LOGic. Let's log a QSO. Open the info form and log form if they are not already open. (It is not necessary to have the info form open to use the log form, but we will be discussing it in this section). Click the Add

 New QSO button. Type a call in the Call field, then press {Tab}. The little box to the right of the call field will be checked if the station has ever been worked before. If the station has been worked before, name, QTH and state will be copied from previous QSOs. You can choose which fields are copied from previous QSOs and the prefix table. (See the help file in LOGic.)

LOGic will analyze the callsign by searching its database of over 4,000 prefixes, and in most cases look up and log the proper DXCC country. Other information such as CQ zone, ITU zone, and continent may be logged. If your radio is interfaced to LOGic, the band, mode, and frequency will be logged.

3.1.1. Info Form

The Info form will display comprehensive information about the station's location (often to within a region of the country), DX and direction to the station, DXCC country, CQ and ITU zones, time zone, local time at the station's QTH, any "time warps" such as Daylight Savings Time, ARRL bureau and third-party traffic status, etc.



The screenshot shows the LOGic Info form window. It contains two main sections: travel details and station information.

Travel Details:

to	return
222	146 S
42	326 I
9498 km	lat 33.9
5902 mi	lon 151.2
	grid

Station Information:

VK	Australia	CQ 30
New South Wales	ITU 58	18:56
<input checked="" type="checkbox"/> 3rd party	<input checked="" type="checkbox"/> ARRL bureau	DC 08:21
UTC 04 Nov 97 15:48:27	there 05 Nov 97 02:48:27	10 aust
+..	local 10:48:27	

The info form has buttons for adjusting the UTC Offset (see page 7) to correct the UTC clock, setting your system clock, and updating sunrise/set times.

3.1.2. DX and Direction

When entering a call, the info form displays approximate DX and direction based on the callsign. Note that this is an approximation. These figures will be more accurate if you log a state or grid square. Use the DX Calculator under the Tools menu for exact DX and Direction calculation.

Use the return direction to assist the other station in aiming his antenna towards you. See the appendix on return headings in LOGic's online help.

The DX and Direction calculation is of course based in part on your location. You may change your latitude and longitude in the station info form.

3.1.3. Moving from Field to Field

Navigate the log data form by clicking on the desired field with the mouse, or using {Tab} to move to the next field, or {Shift+Tab} to move backwards through fields.

3.1.4. Dropdown Menu Fields

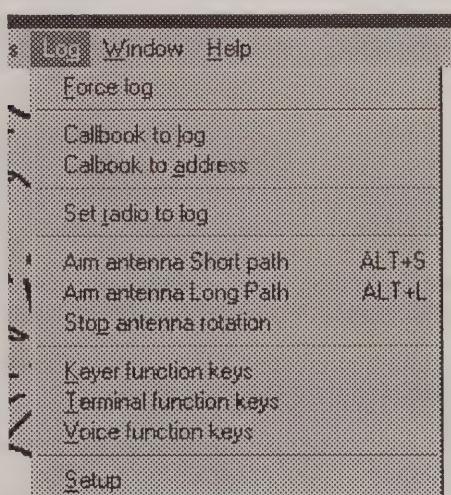


Fields that have a predefined set of choices (DXCC, state, band, mode, etc.) appear as a dropdown menu field. If you know the value to be entered, you may just type it. Press {End} to go to the last choice, {Home} to go to the first choice, or {Del} to blank the field. To see a menu of choices, press the {Space} bar or click on the down-pointing arrow to display the menu choices. You may select from the menu with arrow keys or by typing the value, then pressing {Enter}, or by clicking with the mouse.

Most dropdown fields display descriptions for each acceptable value. You may search the values and descriptions by pressing {F2} or clicking the button to the right of the field. A search control will appear.

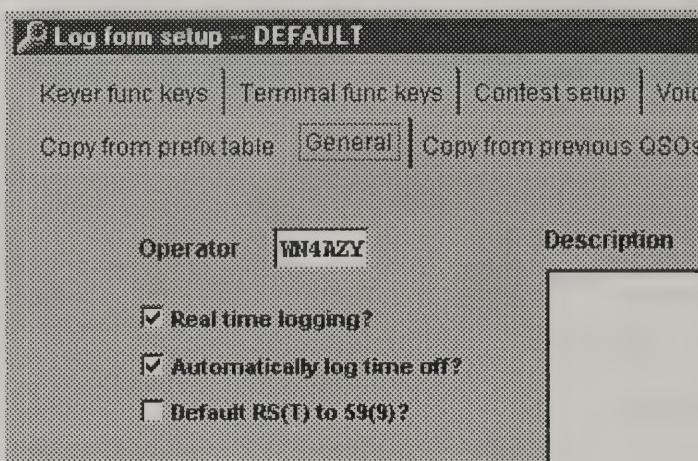


3.1.5. Log Menu



The Log menu (on the *menu bar*) accesses options related to the log form. You may press {F5} for quick keyboard access to this menu.

3.2. Real-time and Non-real-time Logging



By default, LOGic is set up for real-time logging. It automatically logs the date and time, and reads the band, frequency, and mode from the rig if the radio interface is enabled. To enter data from an old logbook, you may disable the real-time mode by selecting Setup from the log menu on the *menu bar*. Select the General index tab, and turn off real time logging.

3.3. Log fields

Most of the fields in the log form are self-explanatory or are adequately documented with the *touch help* or *status bar* help. However, some need additional explanation.

•**Call**--Enter any portable designators as customary, except when a station signs portable with a single number. In these cases, enter the portable designator with the proper country prefix so that the computer can process it properly. For example, log N6MRQ/4 as N6MRQ/W4. If the station is signing with a designator that does not indicate his location—MM for Maritime Mobile, AM for Aeronautical Mobile, or an interim identifier for a temporary license upgrade authorization, enter this suffix preceded by a dash (-) instead of a /. For example, WN4AZY-AM. This will prevent LOGic from treating it as a true portable designator.

•**State**--This field is for valid US states that count for WAS only. Enter MD if you work a District of Columbia station. This does not affect address printing when QSLing. Entering a state will alter the beam headings and prefix display unless a grid square is logged.

•**DXCC**--This field is used for tracking DXCC. It is normally filled in automatically based on callsign. However, there are some cases where the country cannot be properly determined from the callsign. In these cases, simply enter the country manually. Press {F2} for a list. You may type the first letter or two of the country, then press {F2}. This will cause the country menu to pop up with the selected area of the list displayed, so that you do not have to page through a long list. In instances where location can be more accurately determined from the country than the callsign (the country designator contains a hyphen), entering a country will alter the Prefix Info Box and beam headings.

•**Via**--Enter information about how a QSL card is sent. Put a manager's callsign, BURU, or whatever, here. This field interfaces to LOGic's QSL Route facility.

•**Mode**--A list of valid modes is displayed at the bottom of the screen. This is the list that you entered in the General Ham Setup screen. You must enter a mode for LOGic's awards progress tracking to work. The mode is automatically filled in from the value entered in the last QSO, or to the mode read from a computerized radio.

•**Freq**--Enter the frequency in Megahertz. Your entry will be checked against the band table, and you will be alerted if you are operating outside a legal amateur band. If the frequency is inside a valid amateur band, the band field will be filled in automatically.

You may alter the band table to conform to your license class, add new bands, or remove bands that you do not use. (See LOGic's online help file.) You do not need to enter a frequency.

•**Band**--You must enter a band for LOGic's awards progress tracking to work. The band field is automatically filled in with the band from the last QSO logged, or, if using LOGic with a computerized radio, from the frequency on your radio.

•**Date and time**--**Date** and **Time On** are automatically filled in for you. **Time On** is first filled in when you add a record. This keeps the new record at the bottom of the Browse window. It is updated when you type a call and press {Tab} to indicate the time contact was established. **Time Off** is filled in when you exit the Data window or add another QSO. You may manually change these fields. A **Set time off** option is available from the **Log** menu pad for easily filling the **Time Off** field with the current time. Automatic logging of date and time may be turned off. This is helpful when entering data from your old paper logbooks.

•**QSL Sent**--This field keeps track of cards sent. If you want to send a QSL card for this QSO, place an **R** (Requested) in the QSL Sent field. This alerts the report writer to print a card or label for this QSO (See page 21). **F** (Fulfilled) means that the card has actually been sent. The report writer will (with your permission) automatically update this field. However, if you are filling your cards out by hand for some reason, type **F** here to show that the card has been sent. **This field has no effect on awards progress tracking.** You may enter **X** to indicate that the other station does not want a card.

•**QSL Rcvd**--This field indicates not only whether or not you have received a QSL card for this QSO, but if you *expect* to receive a card. If you have requested a card and expect to receive it, enter An **R** (Requested) here. When you receive the card, recall the QSO and enter an **F** (Fulfilled) here. You may enter **X** to indicate that a card is not wanted, or an **I** to tell awards tracking to Ignore the QSO.

The awards progress system uses the QSL Rcvd field to track unworked/worked/confirmed status. It also indicates Requested status so that you can see that while an entity is not confirmed, you are expecting a card for it.

Note! The QSL Card printing process looks only at QSL sent. Awards tracking looks only at QSL Rcvd. Be careful not to confuse the two.

•**Pwr**--If you desire, log transmitted power in watts here. This is automatically filled in with the value you entered in the General Ham Setup screen, if any. This field will accept fractional watts for QRP operation. Only the four most significant digits will be stored.

•**Operator**--If the same log is used by several operators, as may be the case with a DXpedition or club station, enter the call of the operator making the QSO here. This field defaults to the call entered in Station Info. If you change it while logging, the new call will carry forward to subsequent QSOs.

•**Contest ID**--is filled in automatically when contesting. LOGic uses it to differentiate between contest and non-contest QSOs.

3.4. Notes, Addresses, and Biographical Information

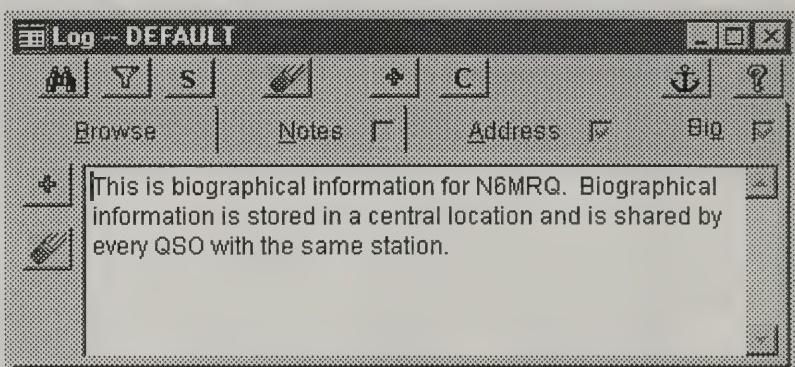
On the log's browse form are index tabs that access Notes, Addresses, and Biographical information. This information appears in editable fields. Right-click to adjust the font size, etc. The check marks on the index tabs allow you to determine if there is anything entered without having to select the tab and actually look at the field.

LOGic can store unlimited notes with each QSO. This is good not only for long comments, but also for storing third-party traffic or the contents of a digital QSO. You may copy data from the data terminal, or any other Windows program, and paste it in Notes, Address, or Bio.

If you plan to generate mailing labels, enter the address in the Address field. Addresses may be easily copied from callbook databases while logging, or you may type the address yourself. Format the address as you want it to appear when printed. There is an option under Log on the menu bar to copy the name, QTH, and state from the log data to address field.

If you want to print an address from a CD-ROM callbook database, you must transfer the address to the address field. The report writer cannot read the CD-ROM directly. This gives you an opportunity to review the address for proper content and format.

Biographical information is like notes, except that info for all QSOs with a particular station is stored in a central location. So, if you work the station the first time, and enter some info in the bio field, it will appear when you work the same station subsequent times. You may add to or edit the bio info at any time. Controls on the bio page allow you to add or erase bio info.



Notes and addresses fields may be placed on the data form. See Log Form Layout Customization on page 37.

3.5. Log Form Tips

Here we will discuss miscellaneous pointers for making the best use of the Log screen.

The time, date, and information from the Prefix table are logged when you press {Tab} while in the Call field. You may log information in anticipation of working a station, even if you do not know the callsign, by pressing {up-arrow} to exit the callsign field. Log the information that you hear. When you establish contact, place the cursor in the call field, type corrections to the callsign if necessary, and press {Tab}, or use the **force log** option of the log menu pad.

If you have already logged a QSO by pressing {Tab} while in the Call field, and wish to correct the callsign without changing the Time On field, use the {• } key to exit the Call field after typing in the changes.

As discussed previously, when you work a station who is already in your log, you are notified, and items such as name and QTH are automatically logged. To view the previous QSOs, use the Other QSOs form. A window similar to the Browse window will appear with previous QSOs displayed.

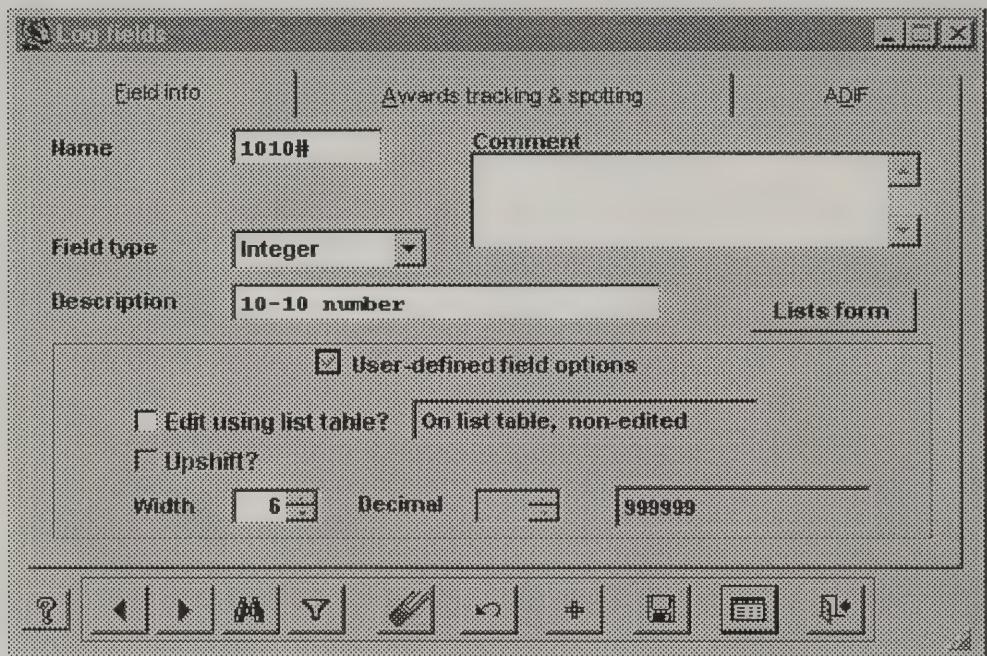
Other QSOs with VE4GV							
Date	Time on	Band	Mode	Name	QSL sent	QSL rcvd	Qth
12/09/91	20:09:15	10M	CW				
03/27/88	15:28:47	20M	SSB	AL			WINNIPEG

4. User-defined fields

One of LOGic's most powerful features is its user-defined field capability. User-defined fields allow you to log information, such as age, occupation, rig, antenna, power, DXCC, county, or 10-10 number, for which there are no dedicated fields. These may be searched or reported just like normal fields, and are an integral part of LOGic's awards tracking facility. You may have any number of user-defined fields.

4.1. Log Fields Table

Before using a user-defined field, it must be defined in the Log Fields form. From the Tools menu, select **Setup**, then **Log fields, spotting, and awards tracking**.



The Log Fields form lists all fields used by the log form, whether they are user-defined or normal fields. Several user-defined fields are already listed. In fact, LOGic stores fields that are not frequently used with all QSOs to conserve disk space.

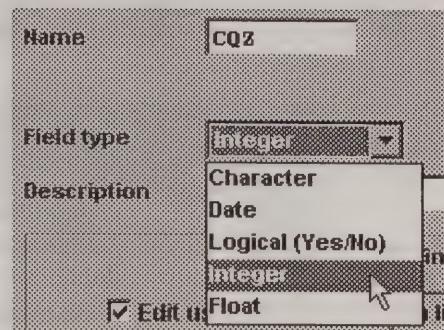
LOGic comes with quite a few user-defined fields already set up. Please browse the Log Fields form so as not to duplicate a field that has already been created for you.



To add a field, click the Add new record button. Enter a **name** for your field.

Select a **field type**. The field type determines what kind of data can be entered into the field. **Character** accepts anything. **Logical** accepts only yes-no values, and appears as a check box on the log form. You would use a Logical field for indicating YL QSOs, for instance. **Integer** and **Float** store numeric values only. Integer stores only whole numbers with no digits after the decimal point. Float will store any number.

If you selected Character, Integer, or Float, you must specify the width of the field. If you specified Float, you must also specify the number of decimal places the field will have.



For character fields, you may choose to upshift (convert to all capital letters) the data. It is recommended that you do this for all of your character fields.

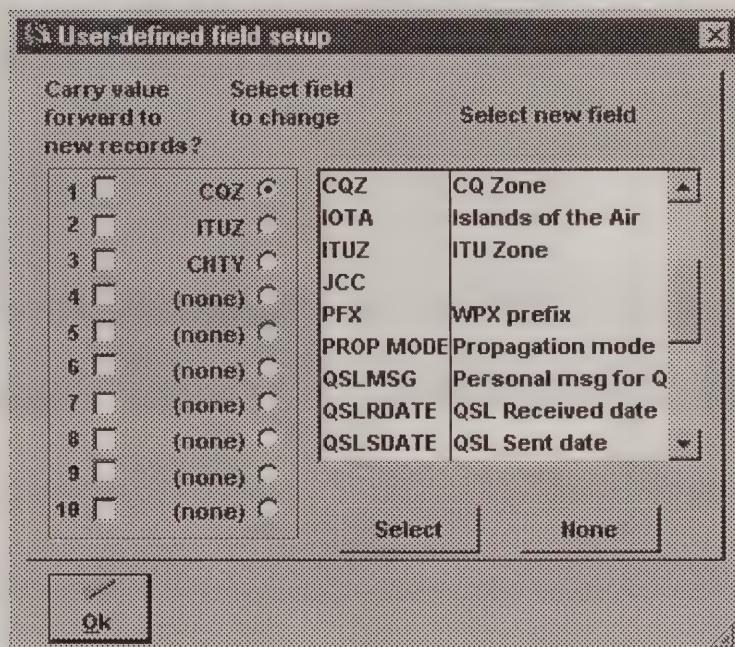
If the user-defined field will have a set of acceptable values (rig used for the QSO, for example), you may enter these values in the Lists table, and the field will appear on the log screen as a dropdown menu field. See...

This form controls numerous options such as packet cluster spotting and awards tracking. These will be discussed elsewhere.

4.2. Adding User-defined Fields to the Log Form



Merely adding a field to the log fields table does not affect the log form. You must select which user-defined fields are to appear on the log form. Click the user-defined fields menu button on the log form.



You may have up to ten user-defined fields per log form. (Only five are visible on the factory setup. See Additional Fields on page 37 to enable others). Push the button in the middle column to select one of the ten fields. Select which user field should be displayed in that position. Check the leftmost column if you want the last value entered to be automatically filled in when you add new QSOs.

The browse form has columns for user-defined fields. You will probably have to pan to the right or move the user-defined field columns to the left to see them.

Although there is a limit of ten user-defined fields per log form, they may be changed at will, and you may make additional log forms, each with 10 user-defined fields.

5. Lists Table

DXCC	
Field name	Description
FFB	Comoros
FF	French West Africa
FG	Guadeloupe
FH	Mayotte
FI8	French Indo-china
FK	New Caledonia
FM	Martinique

The lists table contains lists of valid values. The table contains DXCC countries, WAS states, US counties, CQ Zones, ITU Zones, etc. These values appear in the dropdown menu fields on the log form, and are used for storing awards progress tallies.

You may add your own lists to the lists table. For example, you may make a user-defined field for the antenna used to make a QSO. If you enter a list of antennas here, they will appear in a dropdown menu field on the log form. A more common reason to add information to the lists table is to add a new award to LOGic.

You may also use the lists table to modify existing lists—for example adding a new DXCC country.

To access the lists form, select Tools/Setup/Lists of valid values from the menu bar.

The screenshot shows the LOGic software interface with two windows open. The top window is a dialog box titled 'Lists' for editing a record. It has fields for 'Field name' (set to 'DXCC'), 'Value' (set to '1AD'), 'Non-edited' (unchecked), 'Multiplier' (unchecked), 'Deleted' (unchecked), 'Descr' (containing 'MALTA, SOVERIGN'), and 'Misc' (set to '246'). Below this is a 'Batch updates' section with options like 'Copy list', 'Delete list', and 'Merge counts for inactive'. The bottom window is a larger 'Lists' table window showing a list of records:

Field name	Value	Descr
DOK	Z86	FRANKFURT/ODER
DOK	ZA	DARC-ZELTLAGER BAD ZWI
DXCC	1AD	MALTA, SOVERIGN
DXCC	1M	MINERVA REEF
DXCC	1P	SPRATLAND

For each record, enter the field name and a valid field value. Enter a description. The description will appear in the description column of dropdown menus. Check the Deleted box if the entity (usually a DXCC country) is deleted from active status. The Misc field is used for various purposes by LOGic. For DXCC entries, it contains the ARRL-assigned

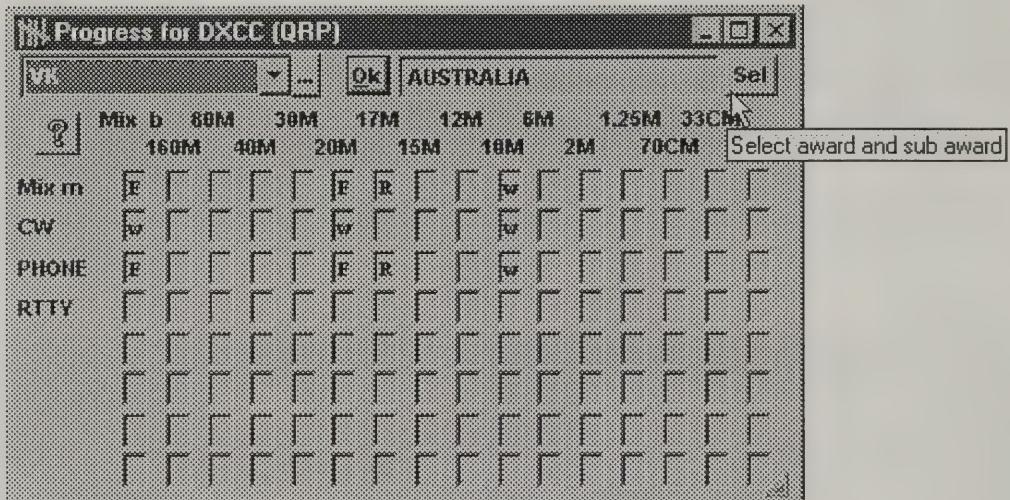
key number used by ADIF (Amateur Data Interchange Format) for proper import and export of DXCC countries. It contains the state in ARRL SECT entries. The FIX STUFF misc utility uses it to look up states from QSOs that have an ARRL section logged, but no state.

LOGic also automatically makes lists of worked entities for non-edited awards tracking and contest multipliers for which no list of valid values exist. If you have been tracking prefixes or 1010#, you will see those entities in the lists table also. The Non-edited or Multiplier boxes will be checked if LOGic entered a record automatically.

LOGic can update the US Islands and Canadian Islands lists from the internet. Select Internet from the tools menu. The programming that imports this data is dependent on the format of the data stored on the web sites, and will fail if the format of the web data changes.

6. Awards Progress Tracking

6.1. Online Progress Displays



LOGic gives you up-to-the-minute awards progress status. From the Forms menu, select Awards Progress 1. This form shows the awards progress for every band and mode combination. The top row shows the mixed mode progress for each band. The left column shows the mixed band progress for each mode. The top left hand corner field shows overall mixed/mixed progress. Status codes correspond to the QSL codes used in the log form. **F** means Fulfilled or confirmed. **R** means that a QSL has been Requested but not received. **W** means Worked, but no QSL received or requested.

The progress display is coordinated with the log form and will automatically show progress as you log. You may also look up specific entities by typing the value in the field and selecting the OK button.

The same form tracks not only DXCC, but all other awards and subawards™. Click the Sel button to change the award being displayed.

There are two progress forms. You may open them both and set each to a different award.

To get a summary of your progress and a list of worked, unworked, confirmed, etc. select Progress List from the Forms menu. Select an award, subaward, band, and mode, then click Next. You will be presented with totals summarizing your progress. The grid lists all entities for the award. You may view all or any combination of fulfilled, unworked, etc. by checking the appropriate boxes and buttons under the grid.

Value	Description	Status	Del?
DA	GERMANY		<input checked="" type="checkbox"/>
DL	FED REP OF GERMANY	Fulfilled	<input type="checkbox"/>
DU	PHILIPPINES	Requested	<input type="checkbox"/>
E3	ERITREA		<input type="checkbox"/>
EA	SPAIN		<input type="checkbox"/>
EA6	BALEARIC IS		<input type="checkbox"/>
EA8	CANARY IS		<input type="checkbox"/>
EA9	CEUTA & MELILLA		<input type="checkbox"/>
EA9-I	IFNI		<input checked="" type="checkbox"/>
EA	AFRICA		<input type="checkbox"/>

Fulfilled Requested Worked Unworked Deleted
 Fulfilled All worked All unconfirmed Unworked All

	Total	Deleted	Total
Total	328		
Worked	30	1	31
Fulfilled (confirmed)	10	1	11
Requested	15		15
Worked, no QSL requested	5		5
Worked, unconfirmed	20		20
Unworked	298		
Unconfirmed, incl unworked	318		

The report writer will print reports of your progress in several formats. See page 43.

6.2. Tracking Submitted Cards

LOGic keeps track of which cards have been submitted for an award. For each award, enter a unique identifier in the comment field. Put a colon after the identifier. For example, DXCCSUB: or WASSUB: When the report writer prints a progress report, it will search for a submitted QSO for each entity.

Do not make separate submitted tags for each band and mode. A card has either been submitted for an award or it hasn't. In other words, if a 20M CW card has been submitted for mixed, it doesn't have to be resubmitted for 20M or CW.

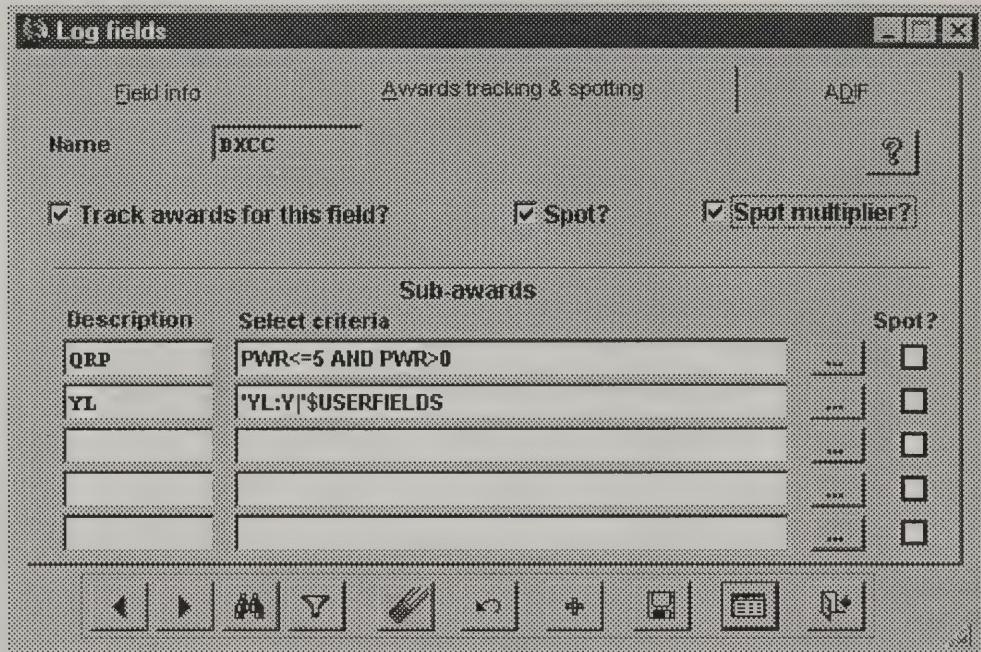
There is no special QSL status for submitted cards, since the same card may be submitted for multiple awards.

LOGic has user-defined fields already set up for QSL Sent Date and QSL Rcvd Date. Enable them if you wish to record this data.

6.3. Setting Up Awards Tracking

LOGic comes set up to track common awards such as DXCC, WAS, etc. However, it is capable of tracking *any* award. It can also track awards for any of LOGic's normal fields. To set up your own award, first create a user-defined field to contain the values to be tracked. See user-defined fields on page 28.

LOGic can also track awards for any of LOGic's normal fields. However, whether tracking is done on a user-defined field or a standard field, awards tracking must be enabled for that field. Select the Awards Tracking and Spotting page of the log fields form. Place a check mark in the Track Awards box.



If a list of valid values exists in the lists table, or you intend to create one, be sure to indicate this on the Field Info page of the log fields form. Otherwise, LOGic will perform *non-edited awards tracking* on this field.

6.3.1. Subawards™

Subawards is a unique and powerful feature that permits tracking of specialized awards such as QRP or YL awards. LOGic will track QSOs that qualify for these specialized awards just as it does for the main award. You can check subaward progress online or with the report writer.

You may have up to five sub awards for every main award. For each subaward, enter *select criteria* that will select the QSOs that qualify for the award. For example, for QRP, enter

PWR <=5 and PWR>0

This will select all QSOs whose pwr field contains 5 or less, but not 0 or blank.

To track YLs, create a user-defined YL field on the log form of type logical. For the subaward select criteria, enter

"YL:Y"\$USERFIELDS

For more info on select criteria, see LOGic's online help.

6.3.2. Awards Modes

The modes entered into the log form are not the same ones as used for awards tracking. For example, LSB and USB do not count as separate modes for awards tracking purposes. LOGic has a table that converts actual emission modes to awards tracking modes. To edit this table, select Tools/Setup/Modes from the menu bar.

*Actual mode	Mode for awards tracking
AMTOR	RTTY
CW	CW
CWN	CW
FM	PHONE
LSB	PHONE
PKT	RTTY
PKTF	RTTY
PTT	RTTY

6.3.3. Update Awards Progress Info

LOGic maintains internal progress tallies automatically. However, there are cases when the progress tallies may become inaccurate:

- When you import data.
- When you change valid bands or modes setup.
- When you erase a QSO from the log, and that QSO was the only one counting towards awards progress for an entity for which it is needed.
- When you change QSL Received to a less-desirable status. For example, from Fulfilled to something else, and that QSO was the only QSO with that status for an entity for which it is needed.

This example will clarify: Suppose you accidentally log a QSO with Guam. LOGic tallies progress for that QSO. But now you erase the QSO. LOGic doesn't know whether or not to remove your progress for Guam without scanning the whole log to make sure there are no other QSOs that will count for Guam. This would take some time, and is not something you would want to wait for while operating.

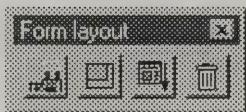
Update Awards Progress also permits you to tally only selected operators in a multi-operator log, or omit WAS tallying before a specified date if you have moved since starting your log.

To retally awards, simply select Update Awards Progress Info from the Tools menu! This progress may find discrepancies in your data that prevent awards tallying, such as blank or invalid bands or modes, bad DXCC country codes, invalid zones or states, etc. This is especially true of imported data. A summary of discrepancies will be displayed with a description of the problem, and you can click a button to edit the QSO on the log form. On the other hand, leaving these rejects won't hurt anything.

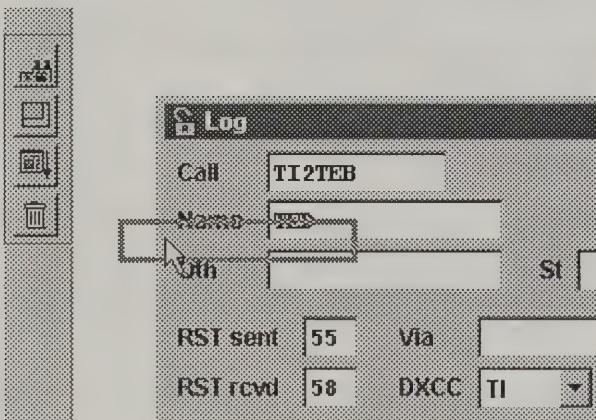
7. Log Form Layout Customization

LOGic's log form offers unsurpassed flexibility. We have already discussed customizing appearance by changing color (see page 11), font, etc. However, this only scratches the surface of the power of LOGic. You can add and remove fields, position fields anywhere you desire, change the ordering of fields, and even change the log form work area.

7.1. Form Layout Toolbar



Before modifying the log form, you must click the lock/unlock button on the form. When the form is unlocked, a form layout toolbar appears. The tool bar may be docked by moving it to any edge of the LOGic application window.

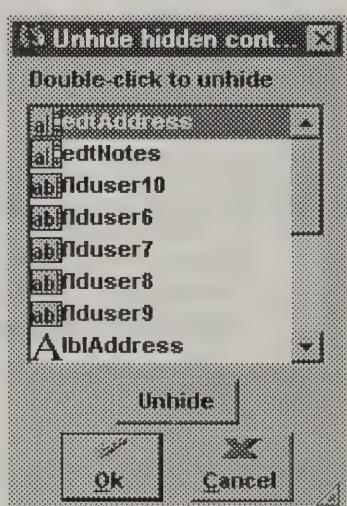


When the form is unlocked, you may move fields and labels by dragging them to change their position. To hide a field or label, drag it into the trash can icon on the tool bar.



To unhide a field or label, click the trash can button on the toolbar. A form appears that lists all hidden items. Select an item and double-click to unhide.

The Factory button sets the layout back to factory default. There is no undo option if you do this, so make sure that you no longer want the current form layout before doing this!

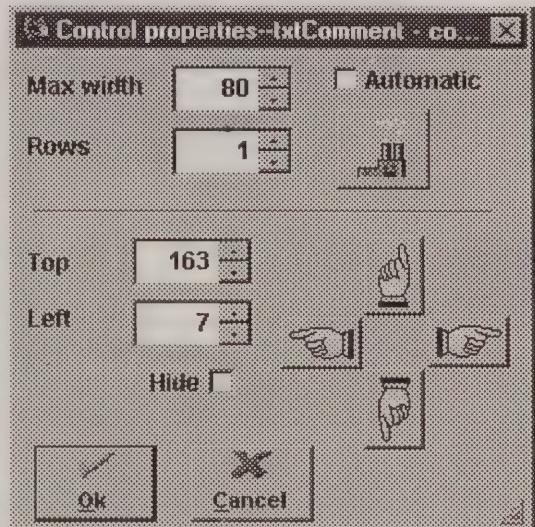


7.2. Resizing Form Work Area

You may adjust the size of the log form work area. Click the resize button, and a template will appear on top of the log form. Resize the template, and click OK. Be sure to leave room at the bottom of the form for the control panel. You may want to make the work area extra large while making your layout changes, then shrink it back to its smallest possible size when you are done.

7.3. Control Properties and Field Size

If you right-click on a field or label, the **control properties** form appears. This tool permits precise positioning of controls by specifying their position in number of pixels from the top and left edges of the log form. It may be easiest for you to drag controls to their approximate position, then precisely position them with the control properties form. The size of character and memo fields may be changed with the control properties form. Automatic sets the field based on the size of the field in the database or the size specified for user-defined fields in the log fields table. If you turn automatic off, you may set the number of characters wide and rows high. If the field is set to 1 row high, you cannot expand it beyond the size of the field in the database or log field table.



Note that changing the field size on the log form has no effect whatsoever on the database. If the field on the log form is smaller than in the database, the field will scroll sideways to accept additional typing. If the field on the log form is smaller than in the database, the field will stop accepting data when the maximum data base field length is reached. You may change the size of most database fields. Select Tools/Miscellaneous Utilities from the menu bar, and run **Change size of log fields**.

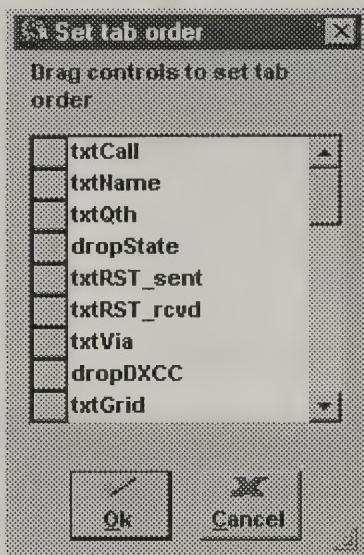
You may also hide controls from the control properties form.

7.4. Notes, Address, and Additional User-defined Fields

LOGic's factory setup includes several fields and labels that are hidden by default: User fields six through ten, and fields for notes and addresses. Although notes and addresses are always available in the browse form, you may wish to place them on the log form.

There is also a field for LOGic's USERFIELDS field. This is a long character field that LOGic uses internally to store user-defined fields. This field exists for diagnostic purposes only. You should not edit USERFIELDS directly.

7.5. Tab order



After changing the form layout, you will probably want to change the tab order, which is the sequence of fields that the cursor moves through as you press {Tab}. Click the tab order button on the layout toolbar. The tab order form appears. Drag the fields using the slider buttons to the left of the list to change the tab order. The top field will be first, the next field second, etc. The Call field should be first.

7.6. Log Form File Management

Form layouts are stored in files with a .LOGFORM extension. These files are normally kept in the LOGDATA folder inside your LOGIC5 home folder. To create a new form, select Log from the Forms menu, then enter the name of the new layout. You may also copy an existing form file and save it under a new name, then modify the copy. If you need to make a small modification to an existing customized form, this is easier than starting from scratch. You may copy log form files using any of the methods provided by Windows, but it is most conveniently done from the file selector that appears when you select Log from the Forms menu. Here's how:

- Hold down the Shift key while dragging the file you wish to copy to a blank area in the file selector window. When you release the mouse, the copy will be created.
- Right-click the copy and select Rename. Change the name of the copy to any valid file name you want that doesn't already exist.

8. QSL Routes

LOGic's QSL Routes form keeps QSL manager information at your fingertips. The QSL Routes form is accessed from the Forms menu. It is perfect for recording QSL routes that you gather from on-the-air operation for future use. It is also used to access the optional PDA QSL Route List, which contains over 40,000 routes and is updated monthly. This inexpensive list is available single-issue or by subscription from PDA. It will greatly ease your DX QSLing chores, and increase your rate of QSL return. It can easily pay for itself in postage savings.

The screenshot shows the 'QSL routes' application window. At the top, there are fields for 'Call' (J79XX) and 'Via' (F6FNU). Below these are sections for 'Comment' (f6fnu antoine baldeck) and 'Address' (John Smith, Camp Rd, Mahaut, Commonwealth of Dominica). To the right, there are fields for 'Manager for' (empty), 'Same manager' (list of managers: 0s0c/3a2if, 3a0cw, 3a200sm, 3a2af, 3a2kf/0s0c, 3a2lf, 3a2lf/0s0c, 3a2kf/0s0c), and 'Form layout' (button). Below the address section are fields for 'Valid' (12-06-1997), 'Info date' (31-10-1997), 'Moral' (empty), and 'Source' (KP4AOD). At the bottom, there is a toolbar with various icons and a 'Browse' button. A scrollable list titled 'Address' displays a table of routes:

Call	Via	Comment	Address	Info date	Source
J79WD	AC1O	AC1O		09-03-1995	N0OHB W
J79WP	PA3ERC			30-10-1996	WA2UZI C
J79XM	K1XM			09-03-1995	N0OHB W
J79XX	F6FNU	or direct	John	31-10-1997	KP4AOD
J79YL	KQ1F	was WB8RRR		09-03-1995	N0OHB W
J79ZD	K4DM	K4DM		47-02-1993	ODZ DV 0

You may store DX stations and references to their managers, or managers' addresses. For that matter, you may enter anyone here just to keep record of their address.

Enter the call of the DX station or manager in the Call field. If the entry is for a DX station with a manager, enter the manager's call in Via. The cross-reference feature takes the call entered in Via and looks it up in the QSL file. For example, if F6FNU is the route for 1S1RR, LOGic will look for F6FNU and display his information. Click the Go To Via button to jump to the cross-referenced record.

You may enter other information about the station in the Comment field. You may enter an unlimited amount of information in the comment field.

If entering a manager, a direct route, or a DX station that has a manager and also accepts direct QSLing, enter the address in the address field. Format it as you want it to print on an address label.

You may enter more than one route for a station.

You may also enter the source of the route information, the date you obtained the information, and the dates for which the route is valid. This information is great for judging the value of a route.

The Moral field is to make a short note about how reliable the manager is.

Another handy and powerful feature of the QSL routes form are the boxes that list all stations having the same manager as the station entered in the Call field, and all stations that are managed by a station. Double-click an entry to jump to that entry.

The QSL Routes form is fully integrated with the log form. Select the appropriate option under the QSL menu to transfer via or address info to or from the log form. To copy from the callbook form, first look up the desired call, then click the Copy button.

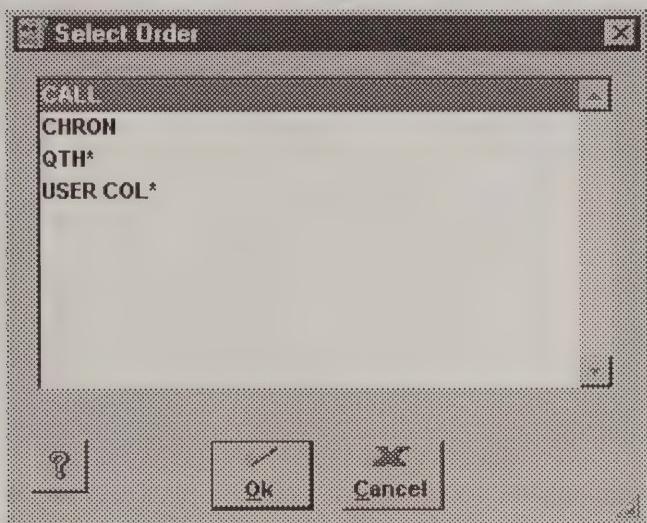
You may customize the QSL routes form in the same manner as the log form. See Form Layout Customization on page 36.

9. Report Writer

LOGic's report writer is unsurpassed for ease and flexibility in printing your log information, awards progress, QSL cards, and labels in an attractive format. All reports included with LOGic were created with LOGic's custom report writer. You may modify the factory reports or create your own. (See LOGic's online help.)

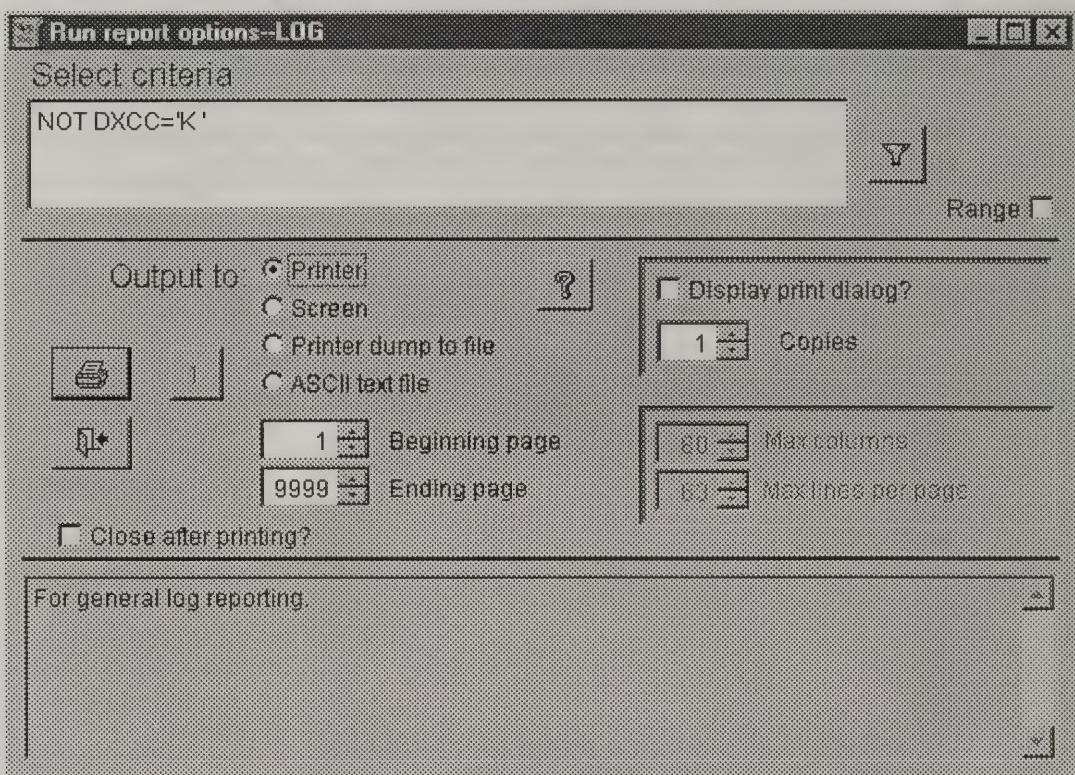
Note that reports may also be viewed on your screen.

To print a report, select Print from the File menu on the menu bar. A file selector of reports will be presented. Select the report to print. You may first be presented with forms asking you to select options related to the particular report.



Some reports allow you to select the order in which the data is printed. For example, the log report allows you to print alphabetically by callsign or in chronological order. Some options are marked with an asterisk (*). This indicates that the order requires a custom index. If you select this option, the report writer will take from a few seconds to several minutes to generate an index. The options not marked use indexes that are integral to the application, so there will be no delay.

Before printing begins, you will see the Report Options form. This contains a description of the report, and allows you to select several options before printing.



Various reports allow different options, so some options on this form may be disabled.

The "1" button prints a single record.

You may select number of copies if printing to a printer, and beginning and ending pages.

If you check **Display print dialog**, the Windows printer selector will appear before printing begins, allowing you to select which printer to use and change your printer's properties.

The **Output to** option lets you choose if the report should be printed, displayed to screen, or "printed" to a disk file. You have two options for disk files. Printer Dump reroutes the graphical information that is normally sent to your printer. Use this if you want to print your reports on a different printer.

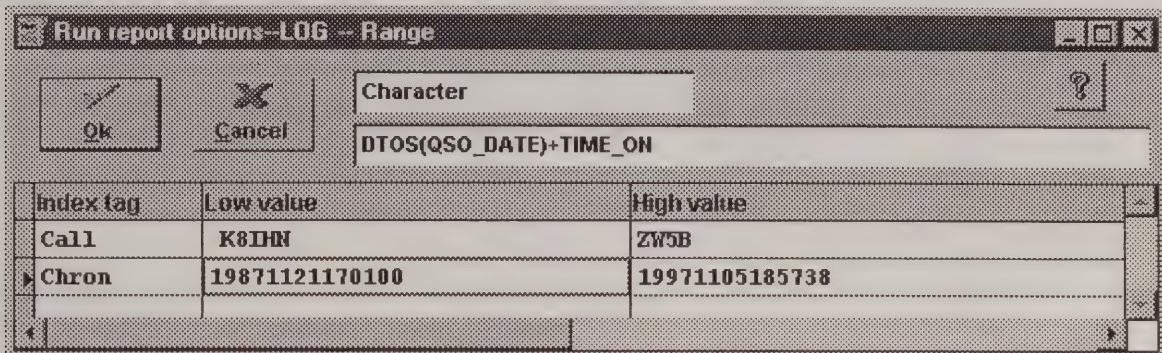
ASCII text output converts the graphical report to text. This text may be viewed or edited in any text editor. Since LOGic's reports are very graphically oriented, with line drawing, graphics, color, and TrueType fonts, do not expect the ASCII text file to look like the printed report! When printing to an ASCII text file, you may choose the maximum line length and the number of lines per page.

9.1. Selecting Records to Print

Frequently, you will not want to print your entire database. The report writer provides two means for selecting which records to print. The Select criteria field lets you enter an expression to limit which records are to be printed. This is most easily accomplished by

 using the Filter feature, which works as described in Filtering (see page 17). Press the Filter button to display the filter form.

Range selection is handy for printing a range of dates or other fields that are *indexed*. Because range selection uses indexes, it is extremely fast.



The range selection form lists each index associated with the file being reported. The lowest and highest value for each index are listed as defaults. Therefore if you make no changes to the high and low values, range selection will have no effect. To narrow the range printed, enter new high and/or low values.

Note that the indexed values may not look anything like you see on the data forms. Oftentimes several fields are combined into one index, and dates are often converted to a YYYYMMDD character format. The Range form displays the expression used to create the index. Be sure to mimic the format of the index value exactly.

Filter and range may be used simultaneously.

9.2. Summary of Reports

Here is a brief overview of some of the reports included with LOGic. They are not all documented here, because we frequently add new reports and include reports created by our customers. Reports have a descriptive name, and most have additional information in the description field.

9.2.1. Miscellaneous

- Log. Prints your log data.
- Gray line. Reports all locations around the globe whose sunset or sunrise time is the same as or close to yours. This is a much more powerful aid in working gray line propagation than a graphical map display.
- Contest and Contest Summary. Prints contest logs and scores.

9.2.2. Awards progress

LOGic includes several reports for assisting your paper chasing. Each prompts for Award and subaward™.

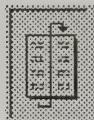
- All bands and modes. Prints a grid that shows the status for each band and mode for each entity.

- 1010. For tracking 1010 and other awards such as county hunters, where you get credit for working increasing numbers of stations.
- Awards. For most awards, including DXCC, where you attempt to work all existing entities. Unlike the online progress displays or All Bands and Modes report, this selects an actual QSO that counts for the award. Use this report for pulling cards from your files for submission.
- Cards needed. This is a very valuable report that analyzes your log and reports all unconfirmed entities. It then reports all QSOs with each entity in reverse-chronological order. This makes it easy to review your outstanding QSL requests and decide which QSO(s) to try to confirm.

9.2.3. QSLing

Most of LOGic's reports are related to QSLing. There are several formats of cards, exchange labels to paste on preprinted cards, address labels, etc. Various label sizes are supported. Some print multiple QSOs on a label.

To print a QSL card, first enter R (Requested) in the QSL Sent field of the log. See page 25. By default, LOGic's QSL card and label reports will select these QSOs. However, you may replace the default select criteria (**QSL_SENT="R"**) with your own select criteria. For instance, **QSL_SENT="R" AND VIA="BUREAU"** will print bureau cards only.



Reports that print on sheet-fed labels allow you to specify the starting position so as to not waste labels on partially-used sheets. Labels are printed starting with the top left hand label, and then down the left column, then to the top of the second column, etc.

Printed: 19.08.96		Page: 1		(LSRQSLMU)	
Confirming QSO with 4B2A					
Date	UTC	Band	Mode	RST	QSL
4 Mar 96	13:46	20M	SSB	59	Tnx
4 Mar 96	18:43	10M	SSB	59	Pse

Printed with LOGic Windows 4.04!
73, Dennis L. Hevener, W4AZY

Confirming QSO with 4M5Y					
Date	UTC	Band	Mode	RST	QSL
29 Mar 96	13:41	15M	SSB	59	
29 Jul 96	01:43	20M	SSB	59	

Printed with LOGic Windows 4.04!
73, Dennis L. Hevener, W4AZY

Confirming QSO with 4B2A					
Date	UTC	Band	Mode	RST	QSL
29 May 96	18:08				
29 May 96	18:08				

Printed with LOGic Windows 4.04!
73, Dennis L. Hevener, W4AZY

Confirming QSO with 4M5Y					
Date	UTC	Band	Mode	RST	QSL
9 Dec 96	20:46				
9 Dec 96	20:46				

Printed with LOGic Windows 4.04!
73, Dennis L. Hevener, W4AZY

Confirming QSO with 4B2A					
Date	UTC	Band	Mode	RST	QSL
26 May 96	12:26				
26 May 96	12:26				

Printed with LOGic Windows 4.04!
73, Dennis L. Hevener, W4AZY

10. Glossary

Application window. A main window that contains most other forms that are opened within the application. For example, a Windows word processor has an application window that contains all open documents within child windows which are inside the application window. LOGic's application window contains the log form and most other forms that can be opened within LOGic.

When the application window is moved, all of its child windows are moved as well. Minimizing the application window effectively removes all of its child windows from the desktop. Closing the application window closes all child windows and exits the application.

It is possible for a Windows programmer to place all windows used by an application on the desktop. However, this is rarely done with applications having many windows, as it is very difficult to manage multiple applications when their windows are not grouped together.

Double-click. Rapidly press and release the left mouse button twice in succession. Left-handed users may choose to reverse the functionality of the right and left buttons. In this case, you will use your index finger on the right button instead.

Drag. To drag something with the mouse, position the pointer on top of it, press the left mouse button, move the object, then release the button to "drop" the object. Left-handed users may choose to reverse the functionality of the right and left buttons. In this case, you will use your index finger on the right button drag operations when the documentation says to drag.

Expression. Symbols and data that define a result. For example, $1+1$ is an expression that defines 2.

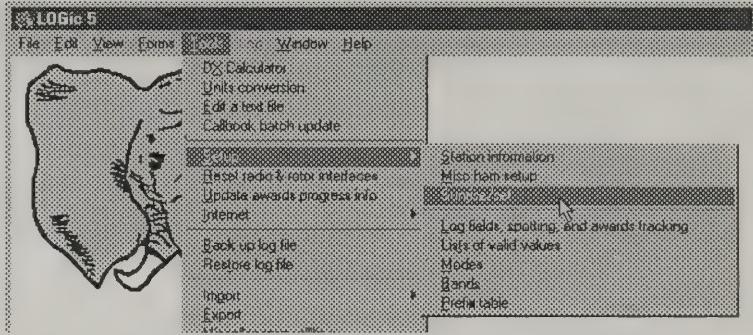
Logical expression. Expressions with a true or false (Yes or No) result. **1 greater than 0** is true. **1 equal 0** is false. Expressions are used extensively by all computer programs. Obvious examples are math done by the computer. But they are also used for other purposes, such as executing the proper part of a program when you make a menu choice or alphabetizing a list of file names.

Fixed font. See Proportional vs. fixed fonts.

Index a feature of database files that permit practically instantaneous retrieval of data. It works much like a library card catalog. Additionally, an index permits instant reordering of data. A file may have more than one index.

Memo field A field in a database that can contain practically an unlimited amount of text data. LOGic uses memo fields to store notes, addresses, and biographical info.

Menu bar. The bar that extends across the top of a window and provides access to the application's or window's features. Most applications have a menu bar in their *application window*. When you click an option on the menu bar, a list of options appears. Some of these options may show yet other menus, as shown here. Help information may be displayed on the *status bar*.



Minimize. Reducing a window to a small icon. Click the leftmost of the three controls that appear at the top right hand corner of a window. A



To *normalize*, or unminimize a minimized window, click the leftmost of the three controls that appear on the right of the icon, or double-click the middle of the icon's title bar.

Non-edited awards tracking. Refers to awards tracking of awards for which no list of valid values has been entered in the awards table. A typical non-edited award is WPX (prefixes). There are simply too many possible values to make a comprehensive list. The disadvantages of non-edited tracking are that your input is not checked against a list of valid values, and LOGic cannot report the number of unworked entities. However, this is not a problem for awards such as WPX.

Even if it were possible to make a list when adding a new award, you may wish to set it up as non-edited to avoid the work of making a list. LOGic will create its own list in the lists table, and you may later convert it to a regular list.

Non-proportional font. A fixed font. See *Proportional vs. fixed fonts* below.

Proportional vs. fixed fonts. Proportional and fixed (also called non-proportional) refer to the amount of space used by individual characters in a font. In a fixed font, such as Courier New, each character uses the same amount of space. In a proportional font, characters use differing amounts of space depending on the appearance of the character. For example, an upper-case M will be wider than a lower-case i. Examples of proportional fonts are Arial and Times New Roman. The following table illustrates. Each example shows six M's and i's:

Courier New	MMMMMM iiiiii
Arial	MMMMMM iiiiii
Times New Roman	MMMMMM iiiiii

Note how the Ms and is are the same size in Courier New, which is a fixed font. With the proportional fonts, the Ms are several times wider than the is.

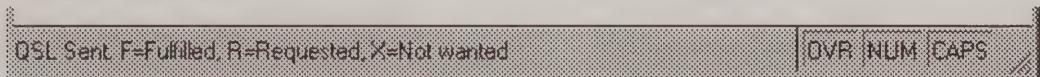
Proportional fonts are the most common. They are easier to read and take up less paper or screen space. However, they are not practical for entering data into a fixed-width field, as it is not easy to tell how close you are to filling up the field. If you are typing a lot of narrow characters, the input area on your screen will show space even though the maximum number of characters allowed by the database has been exceeded. Likewise, if you are typing a lot of wide characters, the input area will be filled before the maximum number of characters has been entered. LOGic uses proportional fonts for data labels, text edit windows, and dropdown menu selections, and fixed fonts for text input fields.

Normalize. To put a window in its normal state—not minimized or maximized.

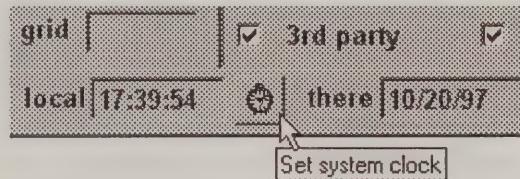
Right-click. Position the mouse over an object, then quickly press and release the **right** button. As per Windows 95 standards, this usually brings up a menu of options, but can be programmed to perform any action the developer desires. Left-handed users may choose to reverse the functionality of the right and left buttons. In this case, you will use your index finger on the right button for most mouse operations, and click with the left mouse button when the documentation says to right-click.

Select criteria. *Logical expressions* used by LOGic's Filter feature, report writer, etc. to select a subset of your records to display or act upon. An example would be NAME="BOB ", which would select only records having BOB in the Name field.

Status bar. The bar at the bottom of most Windows applications that displays the current state of the caps lock, insert, and num lock keys, and other information to help you use the application.



Touch help. Short help messages that are available for fields, buttons, and other controls. To see the touch help, position the mouse pointer on top of the object and take your hand off the mouse or hold it still for a few seconds.



UTC. Abbreviation for Coordinated Universal Time, formerly known as Greenwich Mean Time or GMT. UTC is used in amateur radio because it is the same everywhere in the world.

UTC offset. A setting used by LOGic to convert your system's clock, which is set to your local time, to *UTC*. LOGic adds the UTC Offset to your system clock to determine UTC. A negative UTC subtracts from the system clock to obtain UTC.

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